# CBCS SCHEME

USN | | | | | | | | | | |

1BEIT105/205

## First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Programming in C

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Explain the basic structure of a C program with a neat diagram and a sample program. | 8 | L1 | CO1 |
| | b. | Define is a Variable. Explain the rules to declare a variable in C. Give examples for valid and invalid variables. | 6 | L1 | CO1 |
| | c. | Explain Relational and Logical operators with an illustrative example for each. | 6 | L2 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | What are the basic data types available in C? | 6 | L2 | CO1 |
| | b. | Develop an algorithm to find the area and perimeter of a circle. Also draw a flowchart. | 6 | L1 | CO1 |
| | c. | Write a note on bitwise operators.<br>If a = 10 and b = 5, what is the value of each expression?<br>i) a & b  ii) a \| b  iii) a ^ b  iv) a << 2  v) b >> 1 | 8 | L2 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Write a C program that takes three coefficients a, b, and c of a quadratic equation; ($ax^2 + bx + c = 0$) as input and compute all possible roots with appropriate messages. | 6 | L3 | CO2 |
| | b. | Explain switch statement with syntax and example program. | 6 | L2 | CO2 |
| | c. | Explain formatted input output functions with syntax and examples for each. | 8 | L2 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Write a C program to find the largest of three numbers using nested if statement. | 6 | L3 | CO2 |
| | b. | Explain if-else and if-else-if Ladder statements with syntax and example. | 6 | L2 | CO2 |
| | c. | Explain different types of loops in C with syntax and example. | 8 | L2 | CO2 |

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| **Module – 3** | | | | | |
| **Q.5** | **a.** | What is an array? Explain the declaration and initialization of 1D array. | **6** | **L2** | **CO3** |
| | **b.** | Write a C program to search a key element in the given sorted array of integer numbers using binary search technique. | **8** | **L3** | **CO3** |
| | **c.** | Define Pointer. Explain pointer variable declaration and initialization with suitable example. | **6** | **L2** | **CO3** |
| **OR** | | | | | |
| **Q.6** | **a.** | Define String. Explain any 2 string manipulation functions with suitable example. | **6** | **L2** | **CO3** |
| | **b.** | Write a C program to concatenate 2 strings without using built-in function. | **6** | **L3** | **CO3** |
| | **c.** | Write a C program to multiply two matrices by ensuring their multiplication compatibility. | **8** | **L3** | **CO3** |
| **Module – 4** | | | | | |
| **Q.7** | **a.** | Explain function call, function definition and function prototype with syntax and example for each. | **10** | **L2** | **CO3** |
| | **b.** | Write a C program to swap 2 numbers using call by reference method. | **6** | **L3** | **CO3** |
| | **c.** | List the applications of functions. | **4** | **L1** | **CO3** |
| **OR** | | | | | |
| **Q.8** | **a.** | Define Recursion. Write a C program to find the factorial of a given number using recursion. | **6** | **L3** | **CO3** |
| | **b.** | List and explain two techniques for passing the parameters from one function to another. | **6** | **L2** | **CO3** |
| | **c.** | Explain the dynamic allocation functions with syntax. | **8** | **L2** | **CO3** |
| **Module – 5** | | | | | |
| **Q.9** | **a.** | What is a Structure? Explain the declaration of a structure with an example. | **6** | **L2** | **CO4** |
| | **b.** | Differentiate between Structures and Unions with syntax and example. | **6** | **L2** | **CO4** |
| | **c.** | Create a structure student having members Name and USN. Write a C program to read the details of the 5 students and print them. | **8** | **L3** | **CO4** |
| **OR** | | | | | |
| **Q.10** | **a.** | Write a note on :<br>i) Array of structure<br>ii) Structure with in a structure | **6** | **L2** | **CO4** |
| | **b.** | Write a note on Bit-Fields and Enumerations. | **6** | **L2** | **CO4** |
| | **c.** | Create a structure to read and compute average marks of the students, print the list the students scoring above and below the average marks for a class of N students. | **8** | **L3** | **CO4** |



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CBCS SCHEME

1BENG106/206

USN | | | | | | | | | |

Question Paper Version : A

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Communication Skills

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
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**1.** Standing too close to a colleague during a discussion may create discomfort due to poor use of:
a) Chronemics b) Proxemics
c)Kinesics d)Paralanguage

**2.** Arriving late to a professional meeting shows lack of awareness of:
a) Proxemics b) Chronemics
c) Phonemics d) Semantics

**3.** "The report was submitted on time" is an example of:
a) Simple sentence b) Active voice
c)Passive voice d) Compound sentence

**4.** Why is English important for global interaction?
a) It's a universal language for business. b) It's a native language in most countries.
c) It's the easiest language to learn. d) It has a simple grammar structure.

**5.** Non-verbal communication does not include
a) Gestures b) Posture
c) Silence d) Words

**6.** Which of the following is a psychological barrier to effective communication?
a) Background noise b) Lack of attention
c) Limited vocabulary d) Technical jargon

**7.** Chronemics refers to:
a) Use of physical touch
b)Study of time in communication
c) Facial expressions
d) Writing style and structure

**8.** Rising and falling voice patterns while speaking mainly refer to:
a) Accent
b) Intonation
c) Rhythm
d) Pitch

**9.** Which element ensures communication is complete?
a) Encoding
b) Sender
c)Feedback
d) Channel

**10.** Which of these qualities is important in a group discussion?
a) Hostility
b) Aggressiveness
c) Emotional stability
d) Ignorance

**11.** When using scanning to read an achiever's interview, the reader should:
a) Look for the general mood of the passage
b) Read slowly and carefully for each sentence
c) Search for specific details such as dates, achievements, or quotes
d) Summarize the entire text in their own words

**12.** What is the correct sequence when writing a short biography based on reflections?
a) Achievements → Death → Early life → Advice
b) Early life → Education → Career/achievements → Reflections/advice
c) Advice → Early life → Achievements → Education
d) Career → Early life → Reflections → Education

**13.** Choose the sentence that follows the pattern S + V + C (Subject + Verb + Complement):
a) He wrote a letter.
b) She is a doctor.
c) The boy kicked the ball.
d) They offered him a job.

**14.** You really hit the nail ____ in your speech.
a) In your head
b) Over the head
c) Above the head
d) On the head

**15.** Introducing yourself confidently during campus recruitment reflects skill in:
a) Reading
b) Writing
c) Speaking
d) Proofreading

**16.** When responding to an email, what is considered best practice?
a) Reply as soon as possible, preferably 24 hours
b) Wait at least a week before replying
c) Only respond if you agree with the content
d) Forward the email to others before replying

**17.** Identify the correct question tag: "You are a student, _____?"
a) are you
b) aren't you
c) is you
d) isn't you



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**18.** A role-play where an employee handles a dissatisfied client mainly develops:
a) Memorization | b) Interpersonal communication
c) Grammar accuracy | d) Vocabulary recall

**19.** Participating in a group discussion requires mainly:
a) Speaking continuously | b) Listening and responding logically
c) Dominating others | d) Memorizing facts

**20.** Understanding idioms like “break the ice” helps in:
a) Literal translation | b) Vocabulary development
c)Grammar correction | d) Pronunciation practice

**21.** Writing a formal enquiry letter requires primarily:
a)Informal tone | b) Polite and structured language
c) Emotional expressions | d) Slang

**22.** Replying late to professional emails mainly affects:
a) Grammar | b) Digital etiquette
c)Vocabulary | d)Accent

**23.** Writing a paragraph that argues for renewable energy is an example of:
a) Narrative writing | b) Descriptive writing
c) Argumentative writing | d) Story writing

**24.** Blog writing mainly encourages:
a) Rigid structure | b) Personal voice with clarity
c) Formal reporting | d) Technical documentation

**25.** Which of the following is a non-Wh question?
a) Where are you going? | b) Why is she late?
c) Do you like coffee? | d) What is your name?

**26.** The correct form of reported speech of - She said him, “What did you say?”
a) She asked him what he said | b) She asked him what he had said
c) She asked him what he say | d) She asked him what did you say.

**27.** I Shall be _____ the paper then.
a) reading | b) read
c) readed | d) red

**28.** The correct form of reported speech of - She said him, “What did you say?”
a) She asked him what he said | b) She asked him what he had said
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**29.** Using quotation marks in a search engine helps to:
a) Find synonyms | b)Exclude words
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**30.** Identify the correct tense: "She ___ working here since 2020.
a) is
b) was
c) has been
d) had been

**31.** Discussion forums are examples of:
a) Synchronous communication
b) Asynchronous communication
c) Face-to-face communication
d) Formal interviews

**32.** Tools like Grammarly primarily help in:
a) Content creation
b) Grammar and clarity checking
c) Voice modulation
d) Plagiarism creation

**33.** Which of the following best defines plagiarism?
a) Using open-access materials from the internet.
b) Using someone else's ideas or words without giving credit.
c) Writing your own ideas in your own words.
d) Quoting a source with proper citation.

**34.** Posting confidential company data on social media without permission violates which principle of netiquette?
a) Respect for privacy
b) Respect for diversity
c) Avoiding spam
d) Using proper grammar

**35.** Which of these tools supports both synchronous and asynchronous communication?
a) WhatsApp
b) Google Docs
c) Email
d) Forum

**36.** Which is an example of non-verbal communication?
a) Email
b)Telephone call
c) Facial expression
d)Letter

**37.** Digital literacy means:
a) Ability to type fast
b) Ability to use digital tools responsibly
c) Using social media
d) Watching online videos

**38.** A major problem in handling digital resources is:
a)Easy storage
b)Quick sharing
c) Copyright infringement
d)Availability

**39.** A good social media etiquette includes:
a) Sharing fake news
b) Checking facts before posting
c) Commenting aggressively
d) Ignoring privacy settings

**40.** Online communication reduces:
a)Written records
b)Geographical barriers
c)Digital dependency
d)Screen time



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**41.** A good mock interview should include:
a) Realistic interview questions
b) Feedback on verbal and non-verbal communication
c) Time management practice
d) All of the above

**42.** For a fresher, the ideal length of a resume is:
a) 3–4 pages b) 2–3 pages
c) 1 page d) 5 pages

**43.** Which of the following words belongs to technical vocabulary in engineering?
a) Algorithm b) Happiness
c) Beautiful d) Quickly

**44.** Maintaining eye contact during interviews reflects:
a) Nervousness b) Non-verbal confidence
c) Aggression d) Informality

**45.** A well-structured resume mainly improves:
a) Pronunciation b) First impression
c) Writing speed d) Grammar rules

**46.** Modal verbs like should and must express:
a) Time b) Obligation and advice
c) Condition d) Voice

**47.** Language used in job interviews generally follows which tone?
a) Informal b) Casual
c) Emotional d) Formal and professional

**48.** Which document gives detailed information about an organization's mission and activities?
a) Resume b) Job application
c) SOP d) Company profile

**49.** Modal verbs are commonly used to express:
a) Sentence length b) Vocabulary meaning
c) Ability, permission and obligation d) Punctuation rules

**50.** Which listening material is commonly used to improve comprehension of professional communication?
a) News headlines b) Story books
c) TED Talks d) Comic strips

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CBCS SCHEME

1BENG106/206

USN | | | | | | | | | |

Question Paper Version : B

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CBCS SCHEME

1BENG106/206

USN

Question Paper Version : C

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Communication Skills

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**18.** Rising and falling voice patterns while speaking mainly refer to:
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**37.** I Shall be _____ the paper then.
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CBCS SCHEME

1BENG106/206

USN | | | | | | | | | |

Question Paper Version : D

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Communication Skills

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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c) Emotional expressions d) Slang

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**41.** Standing too close to a colleague during a discussion may create discomfort due to poor use of:
a) Chronemics b) Proxemics
c)Kinesics d)Paralanguage

**42.** Arriving late to a professional meeting shows lack of awareness of:
a) Proxemics b) Chronemics
c) Phonemics d) Semantics

**43.** "The report was submitted on time" is an example of:
a) Simple sentence b) Active voice
c)Passive voice d) Compound sentence

**44.** Why is English important for global interaction?
a) It's a universal language for business. b) It's a native language in most countries.
c) It's the easiest language to learn. d) It has a simple grammar structure.

**45.** Non-verbal communication does not include
a) Gestures b) Posture
c) Silence d) Words

**46.** Which of the following is a psychological barrier to effective communication?
a) Background noise b) Lack of attention
c) Limited vocabulary d) Technical jargon

**47.** Chronemics refers to:
a) Use of physical touch b)Study of time in communication
c) Facial expressions d) Writing style and structure

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CBCS SCHEME

**1BENG106/206**

USN | | | | | | | | | |

**Question Paper Version : A**

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Communication Skills

Time: 1 hr. Max. Marks: 50

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CBCS SCHEME

1BENG106/206

USN | | | | | | | | | | |

Question Paper Version : B

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Communication Skills

Time: 1 hr. Max. Marks: 50

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a) Respect for privacy b) Respect for diversity
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15. Which of these tools supports both synchronous and asynchronous communication?
a) WhatsApp b) Google Docs
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VTU-03-07-2026 08:50:48am BL - BL - BL - BL - BL
03-07-2026 09:03:47am BL - BL - BL - BL - BL

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VTU-03-07-2026 08:50:48am BL - BL - BL
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c)Passive voice
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**34.** Why is English important for global interaction?
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a) Gestures
b) Posture
c) Silence
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**36.** Which of the following is a psychological barrier to effective communication?
a) Background noise
b) Lack of attention
c) Limited vocabulary
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**37.** Chronemics refers to:
a) Use of physical touch
b)Study of time in communication
c) Facial expressions
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**38.** Rising and falling voice patterns while speaking mainly refer to:
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VTU-03-07-2026 08:50:48am - BL - BL - BL - BL - BL
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CBCS SCHEME

1BENG106/206

USN | | | | | | | | | |

Question Paper Version : C

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Communication Skills

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
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1. Discussion forums are examples of:
 a) Synchronous communication b) Asynchronous communication
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VTU-03-07-2026 08:50:48am BL - BL - BL - BL - BL - BL
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CBCS SCHEME

1BENG106/206

USN

Question Paper Version : D

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Communication Skills

Time: 1 hr. Max. Marks: 50

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# CBCS SCHEME

USN | | | | | | | | | | |

1BESC204C

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026

# Introduction to Electronics & Communication Engineering

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Illustrate the block diagram of a regulated power supply and explain the function of each block. | 8 | L2 | CO1 |
| | b. | Using a Block diagram derive the expression for overall gain of a negative feedback amplifier. Mention its advantages | 7 | L2 | CO1 |
| | c. | With a suitable circuit diagram, describe the working of a voltage Doubler circuit. | 5 | L2 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Explain with a neat circuit diagram of a Bi-Phase rectifier with the help of suitable input and output waveforms. | 8 | L2 | CO1 |
| | b. | Describe the operation of a Switched Mode Power Supply (SMPS) with neat diagram. | 7 | L2 | CO1 |
| | c. | What is an amplifier? Explain the types of amplifiers. | 5 | L1 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Draw the circuit diagram and input and output waveform of the following operational amplifier circuits: i) Differentiating opamp ii) Inverting Opamp. | 8 | L1 | CO2 |
| | b. | Define the following operational amplifier parameters value : i) Open loop voltage gain ii) CMRR iii) Slew Rate. | 6 | L1 | CO2 |
| | c. | Explain the Barkhausen criteria required for sustained oscillations. Calculate the Frequency of Oscillations for a three-stage RC phase-shift oscillator with R=10 kΩ and C=0.01 μF in each stage. | 6 | L3 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Explain the operation of a single stage Astable oscillator with a neat circuit diagram. | 8 | L2 | CO2 |
| | b. | With circuit diagram, Explain the operation of a Wien bridge oscillator. | 6 | L2 | CO2 |
| | c. | With circuit diagram and waveform show how operational amplifier can be used as a comparator. | 6 | L2 | CO2 |
| | | **Module – 3** | | | |
| Q.5 | a. | Explain with a neat block diagram. the individual blocks of Moden Communication System. | 8 | L2 | CO3 |
| | b. | Explain the concepts of ASK and FSK with the help of neat labelled waveforms. | 6 | L2 | CO3 |
| | c. | Discuss different types of Communication system with example. | 6 | L2 | CO3 |



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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.6** | **a.** | Explain with a neat diagram the concept of radio wave propagation and its different types. | **8** | **L2** | **CO3** |
| | **b.** | Compare Digital communication over Analog communication. | **6** | **L2** | **CO3** |
| | **c.** | Explain the concepts of AM and FM with the help of waveforms. | **6** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Describe how different segments of a 7-segment display are activated to represent the digits 0 through 9. | **8** | **L2** | **CO4** |
| | **b.** | Explain the classification of embedded systems based on generation. | **6** | **L2** | **CO4** |
| | **c.** | Compare Microprocessor vs Microcontroller in terms of architecture, performance, and applications | **6** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Describe the core components of an embedded system. | **8** | **L2** | **CO4** |
| | **b.** | Discuss major application of Embedded system with examples | **6** | **L2** | **CO4** |
| | **c.** | Differentiate between embedded systems and general-purpose computing systems. | **6** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Apply the concept of half adders to realize a full adder using two half adders and an OR gate, and derive the Sum and Carry expressions along with the truth table. | **8** | **L3** | **CO5** |
| | **b.** | Perform the following Using 2's Complement<br>i) 101000 - 10101<br>ii) 100100 - 10100 | **6** | **L3** | **CO5** |
| | **c.** | Simplify the Boolean expression<br>i) $(x + y)(x' + z)(y + z)$<br>ii) $(A + C)(AD + AD') + AC + C$ | **6** | **L3** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | i) Convert the Boolean expression to Canonical SOP<br>$F_1 = A + B.C + A.B$<br>ii) Convert the Boolean expression to Canonical POS<br>$F2 = (A+B) + (A' + C)$ | **8** | **L3** | **CO5** |
| | **b.** | Perform the following<br>a) Convert $(11010111)_2 = (?)_{10} = (?)_8 = (?)_{16}$<br>b) Find x if $(16)_{10} = (100)_x$ | **6** | **L3** | **CO5** |
| | **c.** | Discuss the step-by-step procedure to design a Combinational circuit | **6** | **L2** | **CO5** |

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1BESC204D

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026
# Introduction to Mechanical Engineering

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Explain briefly the various streams of Mechanical engineering with their Relevance/significance. | **6** | **L2** | **CO1** |
| | **b.** | With a neat sketch, explain the working principle of Pelton Turbine. | **6** | **L2** | **CO1** |
| | **c.** | With a neat sketch, explain the working principle of a vapour compression refrigeration system. | **8** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | With a neat sketch, explain the working principle Power steering in an automobile. | **6** | **L2** | **CO1** |
| | **b.** | Summarize the parts involved in making of a Drone and highlight the functions of the parts. | **6** | **L2** | **CO1** |
| | **c.** | With a neat sketch, explain the working principle of an Air-conditioning system. | **8** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | With the help of neat diagrams, explain the working of a 4-stroke petrol engine. | **10** | **L2** | **CO2** |
| | **b.** | List the advantages and limitations of Electric vehicles and Hybrid vehicles. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | What do you mean by the term Gear train? With the help of a neat sketch, explain the working of a compound gear train. | **10** | **L2** | **CO3** |
| | **b.** | What do you mean by the term Automatic transmission in automobiles. Explain the working of the same. | **10** | **L2** | **CO3** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Define ferrous materials? Explain the different types of ferrous materials with properties and applications. | **10** | **L2** | **CO3** |
| | **b.** | Explain the working principles and applications of piezoelectric materials and magnetorheological (MR) fluids. | **10** | **L2** | **CO3** |



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| | | **OR** | | | |
| **Q.6** | **a.** | Define composite materials. Explain their classification based on the type of matrix material, and discuss their applications. | **10** | **L2** | **CO3** |
| | **b.** | What are smart materials? Explain the different types of smart materials and discuss their advantages and disadvantages. | **10** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Explain the factors that influence the selection of a suitable manufacturing process. | **6** | **L2** | **CO4** |
| | **b.** | Explain the following operations with neat sketches: (i) Turning (ii) facing | **8** | **L2** | **CO4** |
| | **c.** | Differentiate between Welding, Soldering and Brazing. | **6** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | What is CNC? Explain the main components of a CNC machine. | **8** | **L2** | **CO4** |
| | **b.** | With neat sketches, explain any two operations performed on Milling machine. | **6** | **L2** | **CO4** |
| | **c.** | Explain the basic principle of 3D printing. | **6** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Define Automation and explain the different types of automation. | **6** | **L2** | **CO5** |
| | **b.** | Define Mechatronics and explain the elements of a mechatronic system. | **8** | **L2** | **CO5** |
| | **c.** | Explain the need for integration of technologies in modern engineering systems. | **6** | **L2** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | With a neat diagram, explain the working principle of a capacitive sensor. | **6** | **L2** | **CO5** |
| | **b.** | What is an Optical Encoder? Explain its working principle. | **8** | **L2** | **CO5** |
| | **c.** | Describe Advanced Driver Assistance Systems (ADAS) and explain its important features. | **6** | **L2** | **CO5** |

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1BESC204E

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026

# Essentials of Information Technology

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Explain the three major categories of machine instructions with suitable examples. | 6 | L2 | CO1 |
| | b. | With a neat diagram, explain the organization of a typical computer memory system. | 6 | L2 | CO1 |
| | c. | With a neat diagram explain mass storage system. | 8 | L2 | CO1 |
| | | OR | | | |
| Q.2 | a. | What is the difference between RISC and CISC architectures? | 6 | L2 | CO1 |
| | b. | With a neat diagram, explain the basic organization of a computer system and its major functional units. | 6 | L2 | CO1 |
| | c. | Explain how a computer communicates with input/output devices using I/O ports and buses. | 8 | L2 | CO1 |
| | | Module – 2 | | | |
| Q.3 | a. | Explain how different components of an operating system work together to manage hardware and software resources efficiently. | 6 | L2 | CO2 |
| | b. | What is the difference between application software and utility software? | 8 | L2 | CO2 |
| | c. | Define deadlock. Explain the necessary conditions for deadlock to occur with examples. | 6 | L2 | CO2 |
| | | OR | | | |
| Q.4 | a. | Define an algorithm and explain the characteristicsof a good algorithm with suitable examples. | 6 | L2 | CO2 |
| | b. | Define a process. Discuss the roles of the scheduler and dispatcher in process management within an operating system. | 8 | L2 | CO2 |
| | c. | Summarize the distinctions between a process, an algorithm, and a program. | 6 | L2 | CO2 |



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| **Module – 3** | | | | | |
| **Q.5** | **a.** | What is a protocol? Identify three protocols and explain. | **7** | **L2** | **CO2** |
| | **b.** | What practices should be followed to keep passwords safe and secure as part of good cyber hygiene? | **6** | **L2** | **CO2** |
| | **c.** | What is the difference between a bus network and a star network? | **7** | **L2** | **CO2** |
| **OR** | | | | | |
| **Q.6** | **a.** | What is cyber security, and what does the CIA triad represent in cyber security practice? Explain. | **7** | **L2** | **CO5** |
| | **b.** | With neat diagram explain basic information security model. | **6** | **L2** | **CO5** |
| | **c.** | Which two types of cyber security teams focus on understanding the TTP's of actors? Explain. | **7** | **L2** | **CO5** |
| **Module – 4** | | | | | |
| **Q.7** | **a.** | What do you mean by software? Explain the four important stages of engineering software development. | **10** | **L2** | **CO4** |
| | **b.** | Explain different relational operations with simple examples. | **10** | **L2** | **CO4** |
| **OR** | | | | | |
| **Q.8** | **a.** | Explain the conceptual layers of a database management system. | **10** | **L2** | **CO4** |
| | **b.** | Explain Unified Modeling Language (UML). Discuss its importance in software engineering. | **10** | **L2** | **CO4** |
| **Module – 5** | | | | | |
| **Q.9** | **a.** | What is HTML? Explain elements in HTML. | **6** | **L2** | **CO3** |
| | **b.** | Explain Cascading Style Sheets. | **6** | **L2** | **CO3** |
| | **c.** | With neat diagram, explain structure of website | **8** | **L2** | **CO3** |
| **OR** | | | | | |
| **Q.10** | **a.** | Explain the scope and applications of computer graphics in modern systems. | **6** | **L2** | **CO3** |
| | **b.** | Write a short note on:<br>(i) 2D graphics,<br>(ii) Image processing<br>(iii) 3D graphics | **6** | **L2** | **CO3** |
| | **c.** | What is rendering in 3D computer graphics? Explain the basic idea of the rendering pipeline and distinguish between real-time and offline (post-process) rendering with examples. | **8** | **L2** | **CO3** |

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**Question Paper Version : A**

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Balake Kannada

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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**Translate the English words into Kannada**

1. Green
a) Hasiru b) Kenpu c) Bili d) Kappu

2. Window
a) Bagalu b) Kitaki c) Gode d) Mane

3. North direction
a) Uttra dikku b) Dakshana dikku c) Poorva dikku d) Patsimadikku

4. Ten
a) Aidu b) Enttu c) Hattu d) eradu

5. Why
a) Yaake b) Hege c) Yaaru d) Ivaru

**Translate the Kannada Sentence into English**

6. Shubavagali
a) Good morning b) Good after noon c) Good evening d) All the best

7. NaaLe niinu baa
a) You come tomorrow b) You think
c) Not come d) Tomorrow is coming

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8. Yaava pustakka adu?
a) Which book is that? b) Where is the book?
c) Whose book? d) My book

9. Ninna hesaruenu?
a) Name what b) What is your name c) My name d) Your name

10. Edu nanna raajya
a) This is my state b) This is my taluk
c) This is my village d) This is my office

**Fill in the blanks using proper Kannada word**

11. Grandmother is called _______
a) Appa b) Ajja c) Amma d) Ajji

12. Younger brother is called_________
a) aNNa b) Thamma c) Nannu d) Akka

13. Mother's elder sister called__________
a) Chikkamma b) Dhodamma c) Chikkaajji d) Chikkaajja

14. Elder sister is called___________
a) Akka b) Thangi c) Thamma d) Anna

15. Father's younger brother is called _______
a) Dhoddappa b) Dhoddamma c) Chikkappa d) Chikamma

16. **Circle the odd one**:
a) Guppu b) Ooru c) Pattana d) Nagara

17. a) Manushya b) Hasu c) Bekku d) Mara

18. a) Hoovu b) Hannu c) Kayi d) Gode

19. a) Kempu b) Neeli c) Kappu d) Surya

20. a) Oota b) Neeru c) Gali d) Mane

**Choose the Proper Noun**

21. Avnu
a) Hudigi b) Hudaga c) Kudalu d) Kai

22. Naanu
a) Vidyarthi b) Mane c) Book d) Lakhani

23. Ninu nanna
a) Mara b) Gida c) ANNa d) Bagilu



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**24.** Ivu
a) Hannugalu b) Kayi c) Kulabi d) ele

**25.** Avalu
a) Hudaga b) Hudagi c) Gidad d) Hasu

**Fill in the blanks with suitable words to make the sentence meaningful:**

**26.** Bega _______
a) Banni b) bele c) Belle d) None of these

**27.** Ninna hathira Pustaka_________
a) Idaeye b) Bande c) Hoda d) Sotha

**28.** Nimma Gunppu_____________?
a) Yara? b) Yaavadu? c) Yaga? d) None of these

**29.** Niinu ellige_________?
a) Jaaga b) Rathri c) Hagalu d) Hogidde

**30.** Niinu igle
a) Baa b) Sari c) Illa d) thappu

**Select the correct tense in Kannada:**

**31.** I am nearby railway station
a) Railway tumbba dura
b) Nanu railige hoguttene
c) Naanu Railway nildanada hattrira iddne
d) Railway namma ooru hattira

**32.** You be there, I will come
a) Naanu illeiddene sari
b) Naanu alligu hogalla sarina
c) Niinu bega baa
d) Alle iru, naanu allege baruttene

**33.** Ok today college is there?
a) Sari indu kalegu ideyaa
b) Sari indu Kaleguilla
c) Sari indu college aayitha
d) Sari indu kalejige baralla

**34.** Is there college today?
a) indu kaleju ideya
b) Kallejuelli
c) Kallejige iga
d) Kallejige hogi

**35.** Wait to come with you I will inform my mother
a) Iru naanu nimma jote baralu namma ammanige barlla
b) Iru naanu nimma jote baralu namma ammanige illa
c) Iru naanu nimma jote baralu namma ammanige tilisuttene
d) Iru nnanu nimma jote baralu namma ammanige tilisulla



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**Select the correct tense in English**

**36.** Hogibande
a) Present b) Past c) Future d) None of these

**37.** Ninne sayankala
a) Future b) Past c) Present d) None of these

**38.** Naanu nale baruttene
a) Present b) Past c) Future d) None of these

**39.** Naanu mundina Varadalli siguttene
a) Present b) Past c) Future d) None of these

**40.** Nanna thayi ninne bandaru
a) Present b) Past c) Future d) None of these

**Fill in the blocks using the correct form of the Kannada word**

**41.** Ninne ( Monday)
a) Somuvaara b) Mangalavaara c) Buduvaara d) Guruvaara

**42.** Nanage nooru rupayi _______( want)
a) Beku b) Beda c) Eke d) Enu

**43.** Tomato 1kg bele ___________(Twenty)
a) Hattu b) Aaru c) Ipattu d) Entu

**44.** Niinu __________ nammuoorigebarutiya (When)
a) Enu b) Yaavaga c) Elli d) Hege

**45.** Niivu_____________ iddira (Where)
a) Eke b) Baa c) Enu d) Elli

**Find the answers**

**46.** Lunch?
a) Madyanhada oota b) Belagina tinddi c) Ratriya oota d) Coffee

**47.** Namma desha
a) Your country b) Our Country c) His country d) My Country

**48.** _________ Kollejige Hoguttene
a) Nanu b) Naavu c) Niivu d) Aavaru

**49.** Ondu vaarakke eludina
a) 7 days b) 5days c) 3 days d) 8 days

**50.** Naavu ______________Belgavige hogutteve
a) Ninna b) Naale c) Manna d) None of these

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**CBCS SCHEME**

**1BKBK109/209**

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**Question Paper Version : B**

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Balake Kannada

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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**Fill in the blocks using the correct form of the Kannada word**

1. Ninne ( Monday)
   a) Somuvaara b) Mangalavaara c) Buduvaara d) Guruvaara

2. Nanage nooru rupayi _______( want)
   a) Beku b) Beda c) Eke d) Enu

3. Tomato 1kg bele ____________(Twenty)
   a) Hattu b) Aaru c) Ipattu d) Entu

4. Niinu __________ nammuoorigebarutiya (When)
   a) Enu b) Yaavaga c) Elli d) Hege

5. Niivu_____________ iddira (Where)
   a) Eke b) Baa c) Enu d) Elli

**Find the answers**

6. Lunch?
   a) Madyanhada oota b) Belagina tinddi c) Ratriya oota d) Coffee

7. Namma desha
   a) Your country b) Our Country c) His country d) My Country

8. _________ Kollejige Hoguttene
   a) Nanu b) Naavu c) Niivu d) Aavaru



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**9.** Ondu vaarakke eludina
a) 7 days　b) 5days　c) 3 days　d) 8 days

**10.** Naavu ______________ Belgavige hogutteve
a) Ninna　b) Naale　c) Manna　d) None of these

**Select the correct tense in Kannada:**

**11.** I am nearby railway station

a) Railway tumbba dura
b) Nanu railige hoguttene
c) Naanu Railway nildanada hattrira iddne
d) Railway namma ooru hattira

**12.** You be there, I will come
a) Naanu illeiddene sari　b) Naanu alligu hogalla sarina
c) Niinu bega baa　d) Alle iru, naanu allege baruttene

**13.** Ok today college is there?
a) Sari indu kalegu ideyaa　b) Sari indu Kaleguilla
c) Sari indu college aayitha　d) Sari indu kalejige baralla

**14.** Is there college today?
a) indu kaleju ideya　b) Kallejuelli
c) Kallejige iga　d) Kallejige hogi

**15.** Wait to come with you I will inform my mother
a) Iru naanu nimma jote baralu namma ammanige barlla
b) Iru naanu nimma jote baralu namma ammanige illa
c) Iru naanu nimma jote baralu namma ammanige tilisuttene
d) Iru nnanu nimma jote baralu namma ammanige tilisulla

**Select the correct tense in English**

**16.** Hogibande

a) Present　b) Past　c) Future　d) None of these

**17.** Ninne sayankala
a) Future　b) Past　c) Present　d) None of these

**18.** Naanu nale baruttene
a) Present　b) Past　c) Future　d) None of these

**19.** Naanu mundina Varadalli siguttene
a) Present　b) Past　c) Future　d) None of these

**20.** Nanna thayi ninne bandaru
a) Present　b) Past　c) Future　d) None of these



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**Fill in the blanks using proper Kannada word**

**21.** Grandmother is called _______

a) Appa b) Ajja c) Amma d) Ajji

**22.** Younger brother is called_________
a) aNNa b) Thamma c) Nannu d) Akka

**23.** Mother's elder sister called__________
a) Chikkamma b) Dhodamma c) Chikkaajji d) Chikkaajja

**24.** Elder sister is called___________
a) Akka b) Thangi c) Thamma d) Anna

**25.** Father's younger brother is called _______
a) Dhoddappa b) Dhoddamma c) Chikkappa d) Chikamma

**Circle the odd one**:

**26.** a) Guppu b) Ooru c) Pattana d) Nagara

**27.** a) Manushya b) Hasu c) Bekku d) Mara

**28.** a) Hoovu b) Hannu c) Kayi d) Gode

**29.** a) Kempu b) Neeli c) Kappu d) Surya

**30.** a) Oota b) Neeru c) Gali d) Mane

**Translate the English words into Kannada**

**31.** Green

a) Hasiru b) Kenpu c) Bili d) Kappu

**32.** Window
a) Bagalu b) Kitaki c) Gode d) Mane

**33.** North direction
a) Uttra dikku b) Dakshana dikku c) Poorva dikku d) Patsimadikku

**34.** Ten
a) Aidu b) Enttu c) Hattu d) eradu

**35.** Why
a) Yaake b) Hege c) Yaaru d) Ivaru

**Translate the Kannada Sentence into English**

**36.** Shubavagali

a) Good morning b) Good after noon c) Good evening d) All the best

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**37.** NaaLe niinu baa
a) You come tomorrow
b) You think
c) Not come
d) Tomorrow is coming

**38.** Yaava pustakka adu?
a) Which book is that?
b) Where is the book?
c) Whose book?
d) My book

**39.** Ninna hesaruenu?
a) Name what
b) What is your name
c) My name
d) Your name

**40.** Edu nanna raajya
a) This is my state
b) This is my taluk
c) This is my village
d) This is my office

**Choose the Proper Noun**

**41.** Avnu
a) Hudigi
b) Hudaga
c) Kudalu
d) Kai

**42.** Naanu
a) Vidyarthi
b) Mane
c) Book
d) Lakhani

**43.** Ninu nanna
a) Mara
b) Gida
c) ANNa
d) Bagilu

**44.** Ivu
a) Hannugalu
b) Kayi
c) Kulabi
d) ele

**45.** Avalu
a) Hudaga
b) Hudagi
c) Gidad
d) Hasu

**Fill in the blanks with suitable words to make the sentence meaningful:**

**46.** Bega _______
a) Banni
b) bele
c) Belle
d) None of these

**47.** Ninna hathira Pustaka_________
a) Idaeye
b) Bande
c) Hoda
d) Sotha

**48.** Nimma Gunppu_____________?
a) Yara?
b) Yaavadu?
c) Yaga?
d) None of these

**49.** Niinu ellige_________?
a) Jaaga
b) Rathri
c) Hagalu
d) Hogidde

**50.** Niinu igle
a) Baa
b) Sari
c) Illa
d) thappu

* * * * *



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# CBCS SCHEME

1BKBK109/209

USN | | | | | | | | | | |

Question Paper Version : C

## First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Balake Kannada

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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**Select the correct tense in Kannada:**

1. I am nearby railway station
   a) Railway tumbba dura
   b) Nanu railige hoguttene
   c) Naanu Railway nildanada hattrira iddne
   d) Railway namma ooru hattira

2. You be there, I will come
   a) Naanu illeiddene sari
   b) Naanu alligu hogalla sarina
   c) Niinu bega baa
   d) Alle iru, naanu allege baruttene

3. Ok today college is there?
   a) Sari indu kalegu ideyaa
   b) Sari indu Kaleguilla
   c) Sari indu college aayitha
   d) Sari indu kalejige baralla

4. Is there college today?
   a) indu kaleju ideya
   b) Kallejuelli
   c) Kallejige iga
   d) Kallejige hogi

5. Wait to come with you I will inform my mother
   a) Iru naanu nimma jote baralu namma ammanige barlla
   b) Iru naanu nimma jote baralu namma ammanige illa
   c) Iru naanu nimma jote baralu namma ammanige tilisuttene
   d) Iru nnanu nimma jote baralu namma ammanige tilisulla



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**Select the correct tense in English**

**6.** Hogibande

a) Present b) Past c) Future d) None of these

**7.** Ninne sayankala

a) Future b) Past c) Present d) None of these

**8.** Naanu nale baruttene

a) Present b) Past c) Future d) None of these

**9.** Naanu mundina Varadalli siguttene

a) Present b) Past c) Future d) None of these

**10.** Nanna thayi ninne bandaru

a) Present b) Past c) Future d) None of these

**Translate the English words into Kannada**

**11.** Green

a) Hasiru b) Kenpu c) Bili d) Kappu

**12.** Window

a) Bagalu b) Kitaki c) Gode d) Mane

**13.** North direction

a) Uttra dikku b) Dakshana dikku c) Poorva dikku d) Patsimadikku

**14.** Ten

a) Aidu b) Enttu c) Hattu d) eradu

**15.** Why

a) Yaake b) Hege c) Yaaru d) Ivaru

**Translate the Kannada Sentence into English**

**16.** Shubavagali

a) Good morning b) Good after noon c) Good evening d) All the best

**17.** NaaLe niinu baa

a) You come tomorrow b) You think
c) Not come d) Tomorrow is coming

**18.** Yaava pustakka adu?

a) Which book is that? b) Where is the book?
c) Whose book? d) My book

**19.** Ninna hesaruenu?

a) Name what b) What is your name c) My name d) Your name



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**20.** Edu nanna raajya
a) This is my state | b) This is my taluk
c) This is my village | d) This is my office

**Fill in the blocks using the correct form of the Kannada word**

**21.** Ninne ( Monday)
a) Somuvaara b) Mangalavaara c) Buduvaara d) Guruvaara

**22.** Nanage nooru rupayi _______( want)
a) Beku b) Beda c) Eke d) Enu

**23.** Tomato 1kg bele ____________(Twenty)
a) Hattu b) Aaru c) Ipattu d) Entu

**24.** Niinu __________ nammuoorigebarutiya (When)
a) Enu b) Yaavaga c) Elli d) Hege

**25.** Niivu_____________iddira (Where)
a) Eke b) Baa c) Enu d) Elli

**Find the answers**

**26.** Lunch?
a) Madyanhada oota b) Belagina tinddi c) Ratriya oota d) Coffee

**27.** Namma desha
a) Your country b) Our Country c) His country d) My Country

**28.** _________ Kollejige Hoguttene
a) Nanu b) Naavu c) Niivu d) Aavaru

**29.** Ondu vaarakke eludina
a) 7 days b) 5days c) 3 days d) 8 days

**30.** Naavu ______________ Belgavige hogutteve
a) Ninna b) Naale c) Manna d) None of these

**Choose the Proper Noun**

**31.** Avnu
a) Hudigi b) Hudaga c) Kudalu d) Kai

**32.** Naanu
a) Vidyarthi b) Mane c) Book d) Lakhani

**33.** Ninu nanna
a) Mara b) Gida c) ANNa d) Bagilu

**34.** Ivu
a) Hannugalu b) Kayi c) Kulabi d) ele

**35.** Avalu
a) Hudaga b) Hudagi c) Gidad d) Hasu



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**Fill in the blanks with suitable words to make the sentence meaningful:**

**36.** Bega _______
a) Banni b) bele c) Belle d) None of these

**37.** Ninna hathira Pustaka_________
a) Idaeye b) Bande c) Hoda d) Sotha

**38.** Nimma Gunppu_____________?
a) Yara? b) Yaavadu? c) Yaga? d) None of these

**39.** Niinu ellige_________?
a) Jaaga b) Rathri c) Hagalu d) Hogidde

**40.** Niinu igle
a) Baa b) Sari c) Illa d) thappu

**Fill in the blanks using proper Kannada word**

**41.** Grandmother is called _______
a) Appa b) Ajja c) Amma d) Ajji

**42.** Younger brother is called_________
a) aNNa b) Thamma c) Nannu d) Akka

**43.** Mother's elder sister called__________
a) Chikkamma b) Dhodamma c) Chikkaajji d) Chikkaajja

**44.** Elder sister is called___________
a) Akka b) Thangi c) Thamma d) Anna

**45.** Father's younger brother is called _______
a) Dhoddappa b) Dhoddamma c) Chikkappa d) Chikamma

**Circle the odd one**:

**46.** a) Guppu b) Ooru c) Pattana d) Nagara

**47.** a) Manushya b) Hasu c) Bekku d) Mara

**48.** a) Hoovu b) Hannu c) Kayi d) Gode

**49.** a) Kempu b) Neeli c) Kappu d) Surya

**50.** a) Oota b) Neeru c) Gali d) Mane

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# CBCS SCHEME

1BKBK109/209

USN | | | | | | | | | | |

Question Paper Version : D

## First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Balake Kannada

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
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5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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**Choose the Proper Noun**

1. Avnu
a) Hudigi b) Hudaga c) Kudalu d) Kai

2. Naanu
a) Vidyarthi b) Mane c) Book d) Lakhani

3. Ninu nanna
a) Mara b) Gida c) ANNa d) Bagilu

4. Ivu
a) Hannugalu b) Kayi c) Kulabi d) ele

5. Avalu
a) Hudaga b) Hudagi c) Gidad d) Hasu

**Fill in the blanks with suitable words to make the sentence meaningful:**

6. Bega _______
a) Banni b) bele c) Belle d) None of these

7. Ninna hathira Pustaka_________
a) Idaeye b) Bande c) Hoda d) Sotha

8. Nimma Gunppu_____________?
a) Yara? b) Yaavadu? c) Yaga? d) None of these



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9. Niinu ellige_________?
a) Jaaga b) Rathri c) Hagalu d) Hogidde

10. Niinu igle
a) Baa b) Sari c) Illa d) thappu

**Fill in the blocks using the correct form of the Kannada word**

11. Ninne ( Monday)
a) Somuvaara b) Mangalavaara c) Buduvaara d) Guruvaara

12. Nanage nooru rupayi _______( want)
a) Beku b) Beda c) Eke d) Enu

13. Tomato 1kg bele ____________(Twenty)
a) Hattu b) Aaru c) Ipattu d) Entu

14. Niinu __________ nammuoorigebarutiya (When)
a) Enu b) Yaavaga c) Elli d) Hege

15. Niivu_____________ iddira (Where)
a) Eke b) Baa c) Enu d) Elli

**Find the answers**

16. Lunch?
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**Select the correct tense in Kannada:**

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**23.** Ok today college is there?
a) Sari indu kalegu ideyaa
b) Sari indu Kaleguilla
c) Sari indu college aayitha
d) Sari indu kalejige baralla

**24.** Is there college today?
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b) Iru naanu nimma jote baralu namma ammanige illa
c) Iru naanu nimma jote baralu namma ammanige tilisuttene
d) Iru nnanu nimma jote baralu namma ammanige tilisulla

**Select the correct tense in English**

**26.** Hogibande
a) Present b) Past c) Future d) None of these

**27.** Ninne sayankala
a) Future b) Past c) Present d) None of these

**28.** Naanu nale baruttene
a) Present b) Past c) Future d) None of these

**29.** Naanu mundina Varadalli siguttene
a) Present b) Past c) Future d) None of these

**30.** Nanna thayi ninne bandaru
a) Present b) Past c) Future d) None of these

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**35.** Father's younger brother is called _______
a) Dhoddappa b) Dhoddamma c) Chikkappa d) Chikamma



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**Circle the odd one**:

**36.** a) Guppu b) Ooru c) Pattana d) Nagara

**37.** a) Manushya b) Hasu c) Bekku d) Mara

**38.** a) Hoovu b) Hannu c) Kayi d) Gode

**39.** a) Kempu b) Neeli c) Kappu d) Surya

**40.** a) Oota b) Neeru c) Gali d) Mane

**Translate the English words into Kannada**

**41.** Green

a) Hasiru b) Kenpu c) Bili d) Kappu

**42.** Window

a) Bagalu b) Kitaki c) Gode d) Mane

**43.** North direction

a) Uttra dikku b) Dakshana dikku c) Poorva dikku d) Patsimadikku

**44.** Ten

a) Aidu b) Enttu c) Hattu d) eradu

**45.** Why

a) Yaake b) Hege c) Yaaru d) Ivaru

**Translate the Kannada Sentence into English**

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a) Good morning b) Good after noon c) Good evening d) All the best

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a) You come tomorrow b) You think
c) Not come d) Tomorrow is coming

**48.** Yaava pustakka adu?

a) Which book is that? b) Where is the book?
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**49.** Ninna hesaruenu?

a) Name what b) What is your name c) My name d) Your name

**50.** Edu nanna raajya

a) This is my state b) This is my taluk
c) This is my village d) This is my office

* * * * *



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CBCS SCHEME

USN | | | | | | | | | |

1BKSK109/209

Question Paper Version : A

**First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

Time: 1 hrs. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಸೈನಿಕರ ವೀರಜೀವನವನ್ನು ತಿಳಿಸುವ ಶಾಸನ ತಿಳಿಸಿ?
   a) ಬೇಲೂರಿನ ಶಾಸನ
   b) ಶ್ರವಣಬೆಳಗೊಳ ಶಾಸನ
   c) ವೀರಗಲ್ಲು ಶಾಸನ
   d) ಬಾದಾಮಿ ಶಾಸನ

2. ಅಕ್ಕನ ವಚನದ ಪ್ರಕಾರ ಹಸಿವಾದರೆ ಊರೊಳಗೆ ಬಿಕ್ಷಾನ್ನಗಳುಂಟು, ತೃಷೆಯಾದರೆ ____ ಹಳ್ಳಗಳುಂಟು
   a) ಹಳ್ಳಕೊಳ್ಳ
   b) ಕೆರೆಬಾವಿ
   c) ಬೆಟ್ಟಗುಡ್ಡ
   d) ಕಟ್ಟೆ

3. ಕರ್ನಾಟಕ ಗತವೈಭವ ಗ್ರಂಥದ ಕರ್ತೃ ಯಾರು?
   a) ದೇವರಾಜ್‌ಅರಸ್
   b) ಆಲೂರು ವೆಂಕಟರಾಯರು
   c) ಬಿ.ಎಂ.ಶ್ರೀ
   d) ಕುವೆಂಪು

4. ವಿನೋಬಾ ಭಾವೆಯವರು ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಏನೆಂದು ಕರೆದರು?
   a) ಲಿಪಿಗಳ ರಾಜ
   b) ಲಿಪಿಗಳ ರಾಣಿ
   c) ಲಿಪಿಗಳ ಅಲಂಕಾರ
   d) ಅಲಂಕಾರ

5. 1955 ರಲ್ಲಿ ರಾಯಚೂರಿನಲ್ಲಿ ನಡೆದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಸಮ್ಮೇಳನದ ಅಧ್ಯಕ್ಷರು ಯಾರು?
   a) ಶ್ರೀರಂಗರು
   b) ದ.ರಾ.ಬೇಂದ್ರೆ
   c) ಚಂದ್ರಶೇಖರಕಂಬಾರ
   d) ಡಿ.ವಿ.ಜಿ



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6. 1974 ರಲ್ಲಿ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಯಾವುದು ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾಯಿತು?
a) ಮರಾಠಿ b) ತೆಲುಗು c) ಇಂಗ್ಲೀಷ್ d) ಕನ್ನಡ

7. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಹುಟ್ಟಿದ ಊರು?
a) ಮಂಡ್ಯ b) ಹಂಪ ಸಂದ್ರ c) ಮೈಸೂರು d) ಹಂಪಿ

8. ಕನ್ನಡ ಭಾಷೆಗೆ _____ ವರ್ಷಗಳ ಇತಿಹಾಸ ಇದೆ.
a) ಎರಡು ಸಾವಿರ b) ಒಂದು ಸಾವಿರ ಐದುನೂರು c) ಐದು ಸಾವಿರ d) ನಾಲ್ಕು ಸಾವಿರ

9. ಗುಂಪಿಗೆ ಸೇರದ ಪದ ತಿಳಿಸಿ:
a) ಕಂಪ್ಯೂಟರ್ b) ಜೆರಾಕ್ಸ್ c) ಗ್ರಂಥಾಲಯ d) ಮೊಬೈಲ್

10. 1972 ನವೆಂಬರ್ 1ರಂದು ಯಾರ ಆಳ್ವಿಕೆಯಲ್ಲಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಎಂದು ನಾಮಕರಣವಾಯಿತು?
a) ಅಂಬೇಡ್ಕರ್
b) ದೇವರಾಜ್‌ಅರಸ್
c) ಪಂಜೇಮಂಗೇಶರಾಯರು
d) ಸರ್. ಥಾಮಸ್ ಮನ್ರೋ

11. ಕಳ್ಳಗಂಜಿ ಕಾಡ ಹೊಕ್ಕೆಡೆ, ಹುಲಿ ತಿಂಬುದಮಾಬುದೇ? ಈ ಸಾಲನ್ನು ಬರೆದ ವಚನಕಾರರು ಯಾರು?
a) ಬಸವಣ್ಣ b) ಅಕ್ಕಮಹಾದೇವಿ c) ಅಲ್ಲಮಪ್ರಭು d) ಜೇಡರದಾಸಿಮಯ್ಯ

12. ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯನವರು ತ್ರಿವಿಧಗಳಿಗಿಂತ ಯಾವುದು ಶ್ರೇಷ್ಠ ಎಂದು ಬಿಂಬಿಸಿದ್ದಾರೆ?
a) ಧ್ಯಾನ b) ಗುರು c) ಕಾಯಕ d) ಭಕ್ತಿ

13. ಕರ್ನಾಟಕ ಸಂಗೀತ ಪಿತಾಮಹ ಎಂಬ ಹೆಸರಿಗೆ ಪಾತ್ರರಾದ ದಾಸ ಯಾರು?
a) ಪುರಂದರದಾಸರು
b) ಕನಕದಾಸರು
c) ವಾದಿರಾಜ
d) ಗೋಪಾಲದಾಸ

14. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ತತ್ವಪದಗಳ ರೂವಾರಿ ಯಾರು?
a) ಅಲ್ಲಮಪ್ರಭು
b) ಪುರಂದರದಾಸರು
c) ಕನಕದಾಸರು
d) ಶಿಶುನಾಳ ಷರೀಫ

15. ಬಸವಣ್ಣನವರ ವಚನದಲ್ಲಿ ಇಂದ್ರನು ಪರ್ವತವನ್ನು ಯಾವ ಆಯುಧದಿಂದ ನಾಶಪಡಿಸುತ್ತಾನೆ?
a) ವಜ್ರಾಯುಧ b) ಬಂದೂಕು c) ಸಲಾಕೆ d) ಮೇಲಿನ ಎಲ್ಲವೂ

16. ಗೂಬೆ ಎಂಬ ಪಕ್ಷಿ ಹಗಲಿನಲ್ಲಿ ತನಗೆ ಕಣ್ಣು ಕಾಣದೇ ಇರುವುದರಿಂದ ಯಾವುದನ್ನು ಬೈಯುವುದು?
a) ಚಂದ್ರ b) ದೇವರು c) ಸೂರ್ಯ d) ಕನ್ನಡಿ

17. ಜೇಡರ ದಾಸಿಮಯ್ಯನ ಅಂಕಿತನಾಮ?
a) ಕೂಡಲ ಸಂಗಮದೇವ b) ರಾಮನಾಥ c) ಗುಹೇಶ್ವರ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ



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18. ಪ್ರಪಂಚದ ಜ್ಞಾನವನ್ನು ಸಂಪಾದನೆ ಮಾಡಿದ ಕುಂಬಾರಕಿ ಆ ಜ್ಞಾನವನ್ನು ಯಾರಿಗೆ ಸಮರ್ಪಿಸಿದಳು?
a) ಶಿಶುನಾಳಧೀಶನಿಗೆ b) ತನಗೆ c) ಪರರಿಗೆ d) ಮೇಲಿನ ಎಲ್ಲರಿಗೂ

19. ತದ್ಭವ ಬರೆಯಿರಿ: ಬ್ರಹ್ಮಾಂಡ
a) ಬ್ರಹ್ಮ b) ಬೊಮ್ಮ c) ಬೊಮ್ಮಾಂಡ d) ಬೊಂಬೆ

20. ಸಮಾನಾರ್ಥಕ ಪದ: ತನು
a) ಮಾನವ b) ಶರೀರ c) ಅಂಗಾಂಗ d) ಅಂತರಂಗ

21. ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿದಾಗ ಮಾನವ ಏನಾಗ ಬೇಕೆಂದು ಡಿ.ವಿ.ಜಿ ತಿಳಿಸಿದ್ದಾರೆ?
a) ನಯವಾಗಬೇಕು b) ಸ್ವಂತ ಇಚ್ಛೆಯಂತೆ c) ಕಲ್ಲಾಗಬೇಕು d) ಮಲ್ಲಿಗೆಯಾಗಬೇಕು

22. ಹೊಸಚಿಗುರು ಹಳೆಬೇರು ಕೂಡಿರಲು_____.
a) ಮರಸೊಬಗು b) ಹೊಸತತ್ವ c) ಹೊಸಜೀವನ d) ಹೊಸಯುಕ್ತಿ

23. ನಾಡಗೀತೆಯನ್ನು ರಚಿಸಿದ ಕವಿ ಯಾರು?
a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ರಾಜರತ್ನ d) ಪಿ.ಲಂಕೇಶ್

24. ಶಕ್ತಿ ಇಲ್ಲದವರಿಗೆ, ದೀನ ದುರ್ಬಲರ ಪಾಲಿಗೆ ಡಿ. ವಿ. ಜಿ.ಯವರು ಹೇಗಿರಬೇಕೆಂದು ಹೇಳಿದ್ದಾರೆ?
a) ಬೇವು-ಬೆಲ್ಲದಂತೆ
b) ಹಾಲು-ತುಪ್ಪದಂತೆ
c) ಬೆಲ್ಲ-ಸಕ್ಕರೆಯಂತೆ
d) ಮೇಲಿನ ಎಲ್ಲವೂ

25. ದ.ರಾ.ಬೇಂದ್ರೆಯವರ ಕಾವ್ಯನಾಮ?
a) ತೀ.ನಂ.ಶ್ರೀ b) ಕುವೆಂಪು c) ಡಿ.ವಿ.ಜಿ d) ಅಂಬಿಕಾತನಯದತ್ತ

26. ಡಿ.ವಿ.ಜಿ.ಯವರ ಕಾಲಘಟ್ಟ :
a) ನವೋದಯ b) ನವ್ಯ c) ಪ್ರಗತಿಶೀಲ d) ಬಂಡಾಯ

27. ಕುರುಡುಕಾಂಚಾಣ ಎಂಬ ಕಾವ್ಯವನ್ನು ಬೇಂಧ್ರೆಯವರ ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೂಂಡಿದ್ದಾರೆ?
a)ನಾಕುತಂತಿ b) ನಾದಲೀಲೆ c) ಸಖಿಗೀತ d) ಪಕ್ಷಿಕಾಶಿ

28. ಕುರುಡುಕಾಂಚಾಣ ಹಣೆಯ ಬಂಡಾರವು ಯಾವುದರದಾಗಿತ್ತು?
a) ಅಧಿಕಾರವಂತರ
b) ಕೂಲಿಕಾರ್ಮಿಕರ
c) ಉದ್ಯಮಿಗಳ
d) ಮೇಲ್ವರ್ಗದವರ

29. ಗೆದ್ದಲು ಹುಳುಗಳು ತಾನು ಕಟ್ಟಿದ ಗೂಡು ಯಾರಿಗೆ ಆಶ್ರಯವಾಯಿತು?
a) ಸಣ್ಣಜೀವಿ
b) ಕ್ಷುದ್ರಜೀವಿ
c) ವಿಷಸರ್ಪ
d) ಮೇಲಿನ ಎಲ್ಲವೂ



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30. 12ನೇ ಶತಮಾನದಲ್ಲಿ ಕಂಡು ಬರುವ ಪ್ರಸಿದ್ಧ ವಚನಕಾರ?

a) ಬಸವಣ್ಣ
b) ಕವಿರಾಜ ಮಾರ್ಗ
c) ಪುರಂದರದಾಸ
d) ಕುವೆಂಪು

31. ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಪಡೆದಿರುವ ದೇಶದ ಅತ್ಯುತ್ತಮ ಪ್ರಶಸ್ತಿ ಯಾವುದು?

a) ಕರ್ನಾಟಕರತ್ನ ಪ್ರಶಸ್ತಿ
b) ಭಾರತರತ್ನ ಪ್ರಶಸ್ತಿ
c) ಪದ್ಮಶ್ರೀ
d) ಪದ್ಮವಿಭೂಷಣ ಪ್ರಶಸ್ತಿ

32. ಕರಕುಶಲ ಕಲೆ =

a) ರಾಗಿ ಬಿತ್ತನೆ
b) ಗಡಿಗೆ ತಯಾರಿಕೆ
c) ರೇಷ್ಮೆ ಸಾಕಾಣಿಕೆ
d) ಮನೆ ಕೆಲಸ

33. ಮೈಸೂರು-ಮಂಡ್ಯ ಸೀಮೆಯ ಕೆಳವರ್ಗದ ಸಮುದಾಯದಲ್ಲಿ ಜನಪ್ರಿಯವಾಗಿರುವ 'ಸಂತ'.

a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
b) ಮಂಟೆಸ್ವಾಮಿ
c) ಸರ್.ಎಂ.ವಿಶ್ವೇಶ್ವರಯ್ಯ
d) ಶಿಶುನಾಳ ಷರೀಫ್

34. ಕನ್ನಂಬಾಡಿ ಅಣೆಕಟ್ಟು ಯಾವ ನದಿಗೆ ಅಡ್ಡಲಾಗಿ ಕಟ್ಟಲಾಗಿದೆ?

a) ಕೃಷ್ಣ
b) ಕಾವೇರಿ
c) ನೇತ್ರಾವತಿ
d) ತುಂಗಭದ್ರಾ

35. ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ ಎಂಬ ಲೇಖನ ಯಾವ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?

a) ಸಮಗ್ರ ಲಲಿತ ಪ್ರಬಂಧಗಳು
b) ಮಲೆನಾಡು ಚಿತ್ರಗಳು
c) ಹೇಮಾವತಿ ತೀರ
d) ಬಕುಲದ ಹೂಗಳು

36. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಜನನ :

a) 15 ಸೆಪ್ಟೆಂಬರ್ 1860
b) 15 ಸೆಪ್ಟೆಂಬರ್ 1862
c)15 ಸೆಪ್ಟೆಂಬರ್ 1890
d) 15 ಸೆಪ್ಟೆಂಬರ್ 1870



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37. ಕರಕುಶಲ ಕಲೆಗಳು ಮತ್ತು ಪರಂಪರೆಯ ವಿಜ್ಞಾನ ಲೇಖನದ ಲೇಖಕರು ಯಾರು?

a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ

b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ

c) ಮೂರ್ತಿರಾವ್

d) ವಾಸುದೇಂದ್ರ

38. ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಗಿಡಗಳು ಭಾರತದಲ್ಲಿ ಎಷ್ಟಿವೆ?

a) ಸು. 600

b) ಸು. 300

c) ಸು. 200

d) ಸು. 400

39. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ___ ಕಲೆಗೆ ಮೂಲ ನೆಲೆ.

a) ಸಮಪಾಲುಚಿತ್ರ ಬಣ್ಣ

b) ಮುದ್ರಣ

c) ನೇಯ್ಗೆ

d) ಚಿತ್ರಬಣ್ಣ

40. ಕರ್ನಾಟಕದ ಅಭಿವೃದ್ಧಿಗೆ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಮಾಡಿದ ಮುಖ್ಯ ಕೆಲಸ ಯಾವುದು?

a) ಭಾರತೀಯ ವಿಶ್ವ ಬ್ಯಾಂಕ್

b) ಭದ್ರಾವತಿಯ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆ

c) ಬೆಂಗಳೂರಿನ ಮಹಿಳಾ ಕಾಲೇಜು

d) ಮೈಸೂರಿನ ಅರಮನೆ ಮೈದಾನ ಅಭಿವೃದ್ಧಿ

41. ಖಡಕ್ ಮೇಷ್ಟ್ರು ಎಂದು ಯಾರನ್ನು ಕರೆಯಲಾಯಿತು?

a) ಪ್ರಹ್ಲಾದ

b) ಗೋಪಣ್ಣ

c) ಇಸ್ಮಾಯಿಲ್

d) ಕರೀಂ ಸಾಬ್

42 ಗೋಪಣ್ಣ ಮಾಸ್ತರರು ಹೆಂಡತಿಯ ಹೆಸರೇನು?

a) ರುಕ್ಮಿಣಿಯಮ್ಮ

b) ರೇಖಾ

c) ರಾಧ

d) ರಮ್ಯ



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43. ಮೆಗಾನೆ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಹೋಳಿ ಹುಣ್ಣಿಮೆಯಂದು ಯಾವ ನರ್ತನ ಮಾಡುತ್ತಾರೆ?
a) ಬಯಲಾಟ
b) ದೊಡ್ಡಾಟ
c) ಹೋಳಿ ಸಿಗ್ಮಾ ನರ್ತನ
d) ಯಕ್ಷಗಾನ

44. ಗೋಪಣ್ಣ ಹೆಂಡತಿಯು ಸಾವನ್ನಪ್ಪಿ ಎಷ್ಟು ವರ್ಷವಾಯಿತು?
a) 25 b) 20 c) 30 d) 21

45. ಯುಗಾದಿ ಕತೆಯ ಲೇಖಕರು ಯಾರು?
a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ವಾಸುದೇಂದ್ರ
d) ಮೂರ್ತಿರಾವ್

46. ಮೆಗಾನೆ ಎಂಬುದು ಒಂದು _____?
a) ಸ್ಥಳ b) ಮನೆ c) ಜನಾಂಗ d) ಪರ್ವತ

47. ಕುಣಬಿಯವರ ಮೂಲ ಎಲ್ಲಿನವರು?
a) ಗೋವಾ b) ಮಂಡ್ಯ c) ಧಾರವಾಡ d) ಹಾಸನ

48. ಮೆಗಾನೆ ಎಂಬ ಹಳ್ಳಿಯಲ್ಲಿ ಇರುವ ಜನಾಂಗ?
a) ಕೊಡವ b) ಕುಣಬಿ c) ಗೊಂಡ d) ಕಾಡುಜನ

49. ಗೋಪಣ್ಣ ಮಾಸ್ತಾರರು **ಓದುತ್ತಿರುವ** ಕಾವ್ಯ ಯಾವುದು?
a)ಮಹಾಭಾರತ
b) ರಾಮಾಯಣ
c) ಕುಮಾರವ್ಯಾಸ ಭಾರತ
d) ಭಗವದ್ಗೀತೆ

50. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ ಪ್ರಬಂಧವನ್ನು ಯಾವ ಪ್ರವಾಸ ಕವನದಿಂದ ಆರಿಸಿಕೊಳ್ಳಲಾಗಿದೆ?
a) ಗಿರಿಜನ
b) ಮೆಗಾನೆ
c) ಗಿರಿಜನ ನಾಡಿಗೆ ಪಯಣ
d) ಆನೆಕಾಡು

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Question Paper Version : B

**First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

Time: 1 hrs. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಖಡಕ್ ಮೇಷ್ಟ್ರು ಎಂದು ಯಾರನ್ನು ಕರೆಯಲಾಯಿತು?
   a) ಪ್ರಹ್ಲಾದ
   b) ಗೋಪಣ್ಣ
   c) ಇಸ್ಮಾಯಿಲ್
   d) ಕರೀಂ ಸಾಬ್
2. ಗೋಪಣ್ಣ ಮಾಸ್ತರರು ಹೆಂಡತಿಯ ಹೆಸರೇನು?
   a) ರುಕ್ಮಿಣಿಯಮ್ಮ
   b) ರೇಖಾ
   c) ರಾಧ
   d) ರಮ್ಯ
3. ಮೆಗಾನೆ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಹೋಳಿ ಹುಣ್ಣಿಮೆ ಯೆಂದು ಯಾವ ನರ್ತನ ಮಾಡುತ್ತಾರೆ?
   a) ಬಯಲಾಟ
   b) ದೊಡ್ಡಾಟ
   c) ಹೋಳಿ ಸಿಗ್ಮಾ ನರ್ತನ
   d) ಯಕ್ಷಗಾನ



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4. ಗೋಪಣ್ಣ ಹೆಂಡತಿಯು ಸಾವನ್ನಪ್ಪಿ ಎಷ್ಟು ವರ್ಷವಾಯಿತು?

a) 25 b) 20 c) 30 d) 21

5. ಯುಗಾದಿ ಕತೆಯ ಲೇಖಕರು ಯಾರು?

a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ

b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ

c) ವಾಸುದೇಂದ್ರ

d) ಮೂರ್ತಿರಾವ್

6. ಮೆಗಾನೆ ಎಂಬುದು ಒಂದು _____?

a) ಸ್ಥಳ b) ಮನೆ c) ಜನಾಂಗ d) ಪರ್ವತ

7. ಕುಣಬಿಯವರ ಮೂಲ ಎಲ್ಲಿನವರು?

a) ಗೋವಾ b) ಮಂಡ್ಯ c) ಧಾರವಾಡ d) ಹಾಸನ

8. ಮೆಗಾನೆ ಎಂಬ ಹಳ್ಳಿಯಲ್ಲಿ ಇರುವ ಜನಾಂಗ?

a) ಕೊಡವ b) ಕುಣಬಿ c) ಗೊಂಡ d) ಕಾಡುಜನ

9. ಗೋಪಣ್ಣ ಮಾಸ್ತರರು ಓದುತ್ತಿರುವ ಕಾವ್ಯ ಯಾವುದು?

a) ಮಹಾಭಾರತ

b) ರಾಮಾಯಣ

c) ಕುಮಾರವ್ಯಾಸ ಭಾರತ

d) ಭಗವದ್ಗೀತೆ

10. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ ಪ್ರಬಂಧವನ್ನು ಯಾವ ಪ್ರವಾಸ ಕವನದಿಂದ ಆರಿಸಿಕೊಳ್ಳಲಾಗಿದೆ?

a) ಗಿರಿಜನ

b) ಮೆಗಾನೆ

c) ಗಿರಿಜನ ನಾಡಿಗೆ ಪಯಣ

d) ಆನೆಕಾಡು

11. ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಪಡೆದಿರುವ ದೇಶದ ಅತ್ಯುತ್ತಮ ಪ್ರಶಸ್ತಿ ಯಾವುದು?

a) ಕರ್ನಾಟಕರತ್ನ ಪ್ರಶಸ್ತಿ

b) ಭಾರತರತ್ನ ಪ್ರಶಸ್ತಿ

c) ಪದ್ಮಶ್ರೀ

d) ಪದ್ಮವಿಭೂಷಣ ಪ್ರಶಸ್ತಿ

12. ಕರಕುಶಲ ಕಲೆ =

a) ರಾಗಿ ಬಿತ್ತನೆ

b) ಗಡಿಗೆ ತಯಾರಿಕೆ

c) ರೇಷ್ಮೆ ಸಾಕಾಣಿಕೆ

d) ಮನೆ ಕೆಲಸ

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13. ಮೈಸೂರು-ಮಂಡ್ಯ ಸೀಮೆಯ ಕೆಳವರ್ಗದ ಸಮುದಾಯದಲ್ಲಿ ಜನಪ್ರಿಯವಾಗಿರುವ 'ಸಂತ'.
a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
b) ಮಂಟೆಸ್ವಾಮಿ
c) ಸರ್.ಎಂ.ವಿಶ್ವೇಶ್ವರಯ್ಯ
d) ಶಿಶುನಾಳ ಷರೀಫ್

14. ಕನ್ನಂಬಾಡಿ ಅಣೆಕಟ್ಟು ಯಾವ ನದಿಗೆ ಅಡ್ಡಲಾಗಿಕಟ್ಟಲಾಗಿದೆ?
a) ಕೃಷ್ಣ
b) ಕಾವೇರಿ
c) ನೇತ್ರಾವತಿ
d) ತುಂಗಭದ್ರಾ

15. ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ ಎಂಬ ಲೇಖನ ಯಾವ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?
a) ಸಮಗ್ರ ಲಲಿತ ಪ್ರಬಂಧಗಳು
b) ಮಲೆನಾಡು ಚಿತ್ರಗಳು
c) ಹೇಮಾವತಿ ತೀರ
d) ಬಕುಲದಹೂಗಳು

16. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಜನನ :
a) 15 ಸೆಪ್ಟೆಂಬರ್ 1860
b) 15 ಸೆಪ್ಟೆಂಬರ್ 1862
c)15 ಸೆಪ್ಟೆಂಬರ್ 1890
d) 15 ಸೆಪ್ಟೆಂಬರ್ 1870

17. ಕರಕುಶಲ ಕಲೆಗಳು ಮತ್ತು ಪರಂಪರೆಯ ವಿಜ್ಞಾನ ಲೇಖನದ ಲೇಖಕರು ಯಾರು?
a) ಕರೀಗೌಡಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ಮೂರ್ತಿರಾವ್
d) ವಾಸುದೇಂದ್ರ

18. ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಗಿಡಗಳು ಭಾರತದಲ್ಲಿ ಎಷ್ಟಿವೆ?
a) ಸು. 600
b) ಸು. 300
c) ಸು. 200
d) ಸು. 400



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19. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ___ ಕಲೆಗೆ ಮೂಲನೆಲೆ.
a) ಸಮಪಾಲು ಚಿತ್ರ ಬಣ್ಣ
b) ಮುದ್ರಣ
c) ನೇಯ್ಗೆ
d) ಚಿತ್ರಬಣ್ಣ

20. ಕರ್ನಾಟಕದ ಅಭಿವೃದ್ಧಿಗೆ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಮಾಡಿದ ಮುಖ್ಯ ಕೆಲಸ ಯಾವುದು?
a) ಭಾರತೀಯ ವಿಶ್ವ ಬ್ಯಾಂಕ್
b) ಭದ್ರಾವತಿಯ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆ
c) ಬೆಂಗಳೂರಿನ ಮಹಿಳಾ ಕಾಲೇಜು
d) ಮೈಸೂರಿನ ಅರಮನೆ ಮೈದಾನ ಅಭಿವೃದ್ಧಿ

21. ಕಳ್ಳಗಂಜಿ ಕಾಡ ಹೊಕ್ಕೆಡೆ, ಹುಲಿ ತಿಂಬುದಮಾಬುದೇ? ಈ ಸಾಲನ್ನು ಬರೆದ ವಚನಕಾರರು ಯಾರು?
a) ಬಸವಣ್ಣ b) ಅಕ್ಕಮಹಾದೇವಿ c) ಅಲ್ಲಮಪ್ರಭು d) ಜೇಡರದಾಸಿಮಯ್ಯ

22. ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯನವರು ತ್ರಿವಿಧಗಳಿಗಿಂತ ಯಾವುದು ಶ್ರೇಷ್ಠ ಎಂದು ಬಿಂಬಿಸಿದ್ದಾರೆ?
a) ಧ್ಯಾನ b) ಗುರು c) ಕಾಯಕ d) ಭಕ್ತಿ

23. ಕರ್ನಾಟಕ ಸಂಗೀತ ಪಿತಾಮಹ ಎಂಬ ಹೆಸರಿಗೆ ಪಾತ್ರರಾದ ದಾಸಯಾರು?
a) ಪುರಂದರದಾಸರು
b) ಕನಕದಾಸರು
c) ವಾದಿರಾಜ
d) ಗೋಪಾಲದಾಸ

24. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ತತ್ವಪದಗಳ ರೂವಾರಿ ಯಾರು?
a) ಅಲ್ಲಮಪ್ರಭು
b) ಪುರಂದರದಾಸರು
c) ಕನಕದಾಸರು
d) ಶಿಶುನಾಳ ಷರೀಫ

25. ಬಸವಣ್ಣನವರ ವಚನದಲ್ಲಿ ಇಂದ್ರನು ಪರ್ವತವನ್ನು ಯಾವ ಆಯುಧದಿಂದ ನಾಶಪಡಿಸುತ್ತಾನೆ?
a) ವಜ್ರಾಯುಧ b) ಬಂದೂಕು c) ಸಲಾಕೆ d) ಮೇಲಿನ ಎಲ್ಲವೂ

26. ಗೂಬೆ ಎಂಬ ಪಕ್ಷಿ ಹಗಲಿನಲ್ಲಿ ತನಗೆ ಕಣ್ಣು ಕಾಣದೇ ಇರುವುದರಿಂದ ಯಾವುದನ್ನು ಬೈಯುವುದು?
a) ಚಂದ್ರ b) ದೇವರು c) ಸೂರ್ಯ d) ಕನ್ನಡಿ

27. ಜೇಡರ ದಾಸಿಮಯ್ಯನ ಅಂಕಿತನಾಮ?
a) ಕೂಡಲ ಸಂಗಮದೇವ b) ರಾಮನಾಥ c) ಗುಹೇಶ್ವರ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ



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28. ಪ್ರಪಂಚದ ಜ್ಞಾನವನ್ನು ಸಂಪಾದನೆ ಮಾಡಿದ ಕುಂಬಾರಕಿ ಆ ಜ್ಞಾನವನ್ನು ಯಾರಿಗೆ ಸಮರ್ಪಿಸಿದಳು?
a) ಶಿಶುನಾಳಧೀಶನಿಗೆ b) ತನಗೆ c) ಪರರಿಗೆ d) ಮೇಲಿನ ಎಲ್ಲರಿಗೂ

29. ತದ್ಭವ ಬರೆಯಿರಿ: ಬ್ರಹ್ಮಾಂಡ
a) ಬ್ರಹ್ಮ b) ಬೊಮ್ಮ c) ಬೊಮ್ಮಾಂಡ d) ಬೊಂಬೆ

30. ಸಮಾನಾರ್ಥಕ ಪದ: ತನು
a) ಮಾನವ b) ಶರೀರ c) ಅಂಗಾಂಗ d) ಅಂತರಂಗ

31. ಸೈನಿಕರ ವೀರಜೀವನವನ್ನು ತಿಳಿಸುವ ಶಾಸನ ತಿಳಿಸಿ?
a)ಬೇಲೂರಿನ ಶಾಸನ b) ಶ್ರವಣಬೆಳಗೊಳ ಶಾಸನ
c) ವೀರಗಲ್ಲು ಶಾಸನ d) ಬಾದಾಮಿ ಶಾಸನ

32. ಅಕ್ಕನ ವಚನದ ಪ್ರಕಾರ ಹಸಿವಾದರೆ ಊರೊಳಗೆ ಬಿಕ್ಷಾನ್ನಗಳುಂಟು, ತೃಷೆಯಾದರೆ ____ ಹಳ್ಳಗಳುಂಟು
a) ಹಳ್ಳಕೊಳ್ಳ b) ಕೆರೆಬಾವಿ c) ಬೆಟ್ಟಗುಡ್ಡ d) ಕಟ್ಟೆ

33. ಕರ್ನಾಟಕ ಗತವೈಭವ ಗ್ರಂಥದ ಕರ್ತೃ ಯಾರು?
a) ದೇವರಾಜ್‌ಅರಸ್ b) ಆಲೂರು ವೆಂಕಟರಾಯರು c) ಬಿ.ಎಂ.ಶ್ರೀ d) ಕುವೆಂಪು

34. ವಿನೋಬಾ ಭಾವೆಯವರು ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಏನೆಂದು ಕರೆದರು?
a) ಲಿಪಿಗಳ ರಾಜ b) ಲಿಪಿಗಳ ರಾಣಿ
c) ಲಿಪಿಗಳ ಅಲಂಕಾರ d) ಅಲಂಕಾರ

35. 1955 ರಲ್ಲಿ ರಾಯಚೂರಿನಲ್ಲಿ ನಡೆದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಸಮ್ಮೇಳನದ ಅಧ್ಯಕ್ಷರುಯಾರು?
a) ಶ್ರೀರಂಗರು b) ದ.ರಾ.ಬೇಂದ್ರೆ c) ಚಂದ್ರಶೇಖರಕಂಬಾರ d) ಡಿ.ವಿ.ಜಿ

36. 1974 ರಲ್ಲಿ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಯಾವುದು ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾಯಿತು?
a) ಮರಾಠಿ b) ತೆಲುಗು c) ಇಂಗ್ಲೀಷ್ d) ಕನ್ನಡ

37. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಹುಟ್ಟಿದ ಊರು?
a) ಮಂಡ್ಯ b) ಹಂಪಸಂದ್ರ c) ಮೈಸೂರು d) ಹಂಪಿ

38. ಕನ್ನಡ ಭಾಷೆಗೆ _____ ವರ್ಷಗಳ ಇತಿಹಾಸ ಇದೆ.
a) ಎರಡು ಸಾವಿರ b) ಒಂದು ಸಾವಿರ ಐದುನೂರು c) ಐದು ಸಾವಿರ d) ನಾಲ್ಕು ಸಾವಿರ

39. ಗುಂಪಿಗೆ ಸೇರದ ಪದ ತಿಳಿಸಿ:
a) ಕಂಪ್ಯೂಟರ್ b) ಜೆರಾಕ್ಸ್ c) ಗ್ರಂಥಾಲಯ d) ಮೊಬೈಲ್

40. 1972 ನವೆಂಬರ್ 1ರಂದು ಯಾರ ಆಳ್ವಿಕೆಯಲ್ಲಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಎಂದು ನಾಮಕರಣವಾಯಿತು?
a) ಅಂಬೇಡ್ಕರ್
b) ದೇವರಾಜ್‌ಅರಸ್
c) ಪಂಜೇಮಂಗೇಶರಾಯರು
d) ಸರ್. ಥಾಮಸ್ ಮನ್ರೋ

41. ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿದಾಗ ಮಾನವ ಏನಾಗ ಬೇಕೆಂದು ಡಿ.ವಿ.ಜಿ ತಿಳಿಸಿದ್ದಾರೆ?
a) ನಯವಾಗಬೇಕು b) ಸ್ವಂತ ಇಚ್ಛೆಯಂತೆ c) ಕಲ್ಲಾಗಬೇಕು d) ಮಲ್ಲಿಗೆಯಾಗಬೇಕು



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42 ಹೊಸಚಿಗುರು ಹಳೆಬೇರು ಕೂಡಿರಲು_____.

a) ಮರಸೊಬಗು b) ಹೊಸತತ್ವ c) ಹೊಸಜೀವನ d) ಹೊಸಯುಕ್ತಿ

43. ನಾಡಗೀತೆಯನ್ನು ರಚಿಸಿದ ಕವಿ ಯಾರು?

a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ರಾಜರತ್ನ d) ಪಿ.ಲಂಕೇಶ್

44. ಶಕ್ತಿ ಇಲ್ಲದವರಿಗೆ, ದೀನ ದುರ್ಬಲರ ಪಾಲಿಗೆ ಡಿ. ವಿ. ಜಿ.ಯವರು ಹೇಗಿರಬೇಕೆಂದು ಹೇಳಿದ್ದಾರೆ?

a) ಬೇವು-ಬೆಲ್ಲದಂತೆ

b) ಹಾಲು-ತುಪ್ಪದಂತೆ

c) ಬೆಲ್ಲ-ಸಕ್ಕರೆಯಂತೆ

d) ಮೇಲಿನ ಎಲ್ಲವೂ

45. ದ.ರಾ.ಬೇಂದ್ರೆಯವರ ಕಾವ್ಯನಾಮ?

a) ತೀ.ನಂ.ಶ್ರೀ b) ಕುವೆಂಪು c) ಡಿ.ವಿ.ಜಿ d) ಅಂಬಿಕಾತನಯದತ್ತ

46. ಡಿ.ವಿ.ಜಿ.ಯವರ ಕಾಲಘಟ್ಟ :

a) ನವೋದಯ b) ನವ್ಯ c) ಪ್ರಗತಿಶೀಲ d) ಬಂಡಾಯ

47. ಕುರುಡುಕಾಂಚಾಣ ಎಂಬ ಕಾವ್ಯವನ್ನು ಬೇಂಧ್ರೆಯವರ ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೂಂಡಿದ್ದಾರೆ?

a)ನಾಕುತಂತಿ b) ನಾದಲೀಲೆ c) ಸಖಿಗೀತ d) ಪಕ್ಷಿಕಾಶಿ

48. ಕುರುಡುಕಾಂಚಾಣ ಹಣೆಯ ಬಂಡಾರವು ಯಾವುದರದಾಗಿತ್ತು?

a) ಅಧಿಕಾರವಂತರ

b) ಕೂಲಿಕಾರ್ಮಿಕರ

c) ಉದ್ಯಮಿಗಳ

d) ಮೇಲ್ವರ್ಗದವರ

49. ಗೆದ್ದಲು ಹುಳುಗಳು ತಾನು ಕಟ್ಟಿದ ಗೂಡು ಯಾರಿಗೆ ಆಶ್ರಯವಾಯಿತು?

a) ಸಣ್ಣಜೀವಿ

b) ಕ್ಷುದ್ರಜೀವಿ

c) ವಿಷಸರ್ಪ

d) ಮೇಲಿನ ಎಲ್ಲವೂ

50. 12ನೇ ಶತಮಾನದಲ್ಲಿ ಕಂಡು ಬರುವ ಪ್ರಸಿದ್ಧ ವಚನಕಾರ?

a) ಬಸವಣ್ಣ

b) ಕವಿರಾಜ ಮಾರ್ಗ

c) ಪುರಂದರದಾಸ

d) ಕುವೆಂಪು

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Question Paper Version : C

**First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

Time: 1 hrs. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಪಡೆದಿರುವ ದೇಶದ ಅತ್ಯುತ್ತಮ ಪ್ರಶಸ್ತಿ ಯಾವುದು?
   a) ಕರ್ನಾಟಕರತ್ನ ಪ್ರಶಸ್ತಿ
   b) ಭಾರತರತ್ನ ಪ್ರಶಸ್ತಿ
   c) ಪದ್ಮಶ್ರೀ
   d)ಪದ್ಮವಿಭೂಷಣ ಪ್ರಶಸ್ತಿ

2. ಕರಕುಶಲ ಕಲೆ =
   a) ರಾಗಿ ಬಿತ್ತನೆ
   b) ಗಡಿಗೆ ತಯಾರಿಕೆ
   c) ರೇಷ್ಮೆ ಸಾಕಾಣಿಕೆ
   d) ಮನೆ ಕೆಲಸ

3. ಮೈಸೂರು-ಮಂಡ್ಯ ಸೀಮೆಯ ಕೆಳವರ್ಗದ ಸಮುದಾಯದಲ್ಲಿ ಜನಪ್ರಿಯವಾಗಿರುವ 'ಸಂತ'.
   a)ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
   b) ಮಂಟೆಸ್ವಾಮಿ
   c) ಸರ್.ಎಂ.ವಿಶ್ವೇಶ್ವರಯ್ಯ
   d) ಶಿಶುನಾಳ ಷರೀಫ್



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4. ಕನ್ನಂಬಾಡಿ ಅಣೆಕಟ್ಟುಯಾವ ನದಿಗೆ ಅಡ್ಡಲಾಗಿಕಟ್ಟಲಾಗಿದೆ?
   a) ಕೃಷ್ಣ
   b) ಕಾವೇರಿ
   c) ನೇತ್ರಾವತಿ
   d) ತುಂಗಭದ್ರಾ

5. ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ ಎಂಬ ಲೇಖನ ಯಾವ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?
   a) ಸಮಗ್ರ ಲಲಿತ ಪ್ರಬಂಧಗಳು
   b) ಮಲೆನಾಡು ಚಿತ್ರಗಳು
   c) ಹೇಮಾವತಿ ತೀರ
   d) ಬಕುಲದಹೂಗಳು

6. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಜನನ :
   a) 15 ಸೆಪ್ಟೆಂಬರ್ 1860
   b) 15 ಸೆಪ್ಟೆಂಬರ್ 1862
   c)15 ಸೆಪ್ಟೆಂಬರ್ 1890
   d) 15 ಸೆಪ್ಟೆಂಬರ್ 1870

7. ಕರಕುಶಲ ಕಲೆಗಳು ಮತ್ತು ಪರಂಪರೆಯ ವಿಜ್ಞಾನ ಲೇಖನದ ಲೇಖಕರು ಯಾರು?
   a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ
   b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
   c) ಮೂರ್ತಿರಾವ್
   d) ವಾಸುದೇಂದ್ರ

8. ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಗಿಡಗಳು ಭಾರತದಲ್ಲಿ ಎಷ್ಟಿವೆ?
   a) ಸು. 600
   b) ಸು. 300
   c) ಸು. 200
   d) ಸು. 400

9. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ___ ಕಲೆಗೆ ಮೂಲನೆಲೆ.
   a) ಸಮಪಾಲುಚಿತ್ರ ಬಣ್ಣ
   b) ಮುದ್ರಣ
   c) ನೇಯ್ಗೆ
   d) ಚಿತ್ರಬಣ್ಣ



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10. ಕರ್ನಾಟಕದ ಅಭಿವೃದ್ಧಿಗೆ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಮಾಡಿದ ಮುಖ್ಯ ಕೆಲಸ ಯಾವುದು?

a) ಭಾರತೀಯ ವಿಶ್ವ ಬ್ಯಾಂಕ್

b) ಭದ್ರಾವತಿಯಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆ

c) ಬೆಂಗಳೂರಿನ ಮಹಿಳಾ ಕಾಲೇಜು

d) ಮೈಸೂರಿನ ಅರಮನೆ ಮೈದಾನ ಅಭಿವೃದ್ಧಿ

11. ಸೈನಿಕರ ವೀರಜೀವನವನ್ನು ತಿಳಿಸುವ ಶಾಸನ ತಿಳಿಸಿ?

a) ಬೇಲೂರಿನ ಶಾಸನ
b) ಶ್ರವಣಬೆಳಗೊಳ ಶಾಸನ
c) ವೀರಗಲ್ಲು ಶಾಸನ
d) ಬಾದಾಮಿ ಶಾಸನ

12. ಅಕ್ಕನ ವಚನದ ಪ್ರಕಾರ ಹಸಿವಾದರೆ ಊರೊಳಗೆ ಬಿಕ್ಷಾನ್ನಗಳುಂಟು, ತೃಷೆಯಾದರೆ _____ ಹಳ್ಳಗಳುಂಟು

a) ಹಳ್ಳಕೊಳ್ಳ  b) ಕೆರೆಬಾವಿ  c) ಬೆಟ್ಟಗುಡ್ಡ  d) ಕಟ್ಟೆ

13. ಕರ್ನಾಟಕ ಗತವೈಭವ ಗ್ರಂಥದ ಕರ್ತೃ ಯಾರು?

a) ದೇವರಾಜ್‌ಅರಸ್  b) ಆಲೂರು ವೆಂಕಟರಾಯರು  c) ಬಿ.ಎಂ.ಶ್ರೀ  d) ಕುವೆಂಪು

14. ವಿನೋಬಾ ಭಾವೆಯವರು ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಏನೆಂದು ಕರೆದರು?

a) ಲಿಪಿಗಳ ರಾಜ
b) ಲಿಪಿಗಳ ರಾಣಿ
c) ಲಿಪಿಗಳ ಅಲಂಕಾರ
d) ಅಲಂಕಾರ

15. 1955 ರಲ್ಲಿ ರಾಯಚೂರಿನಲ್ಲಿ ನಡೆದಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಸಮ್ಮೇಳನದ ಅಧ್ಯಕ್ಷರುಯಾರು?

a) ಶ್ರೀರಂಗರು  b) ದ.ರಾ.ಬೇಂದ್ರೆ  c) ಚಂದ್ರಶೇಖರಕಂಬಾರ  d) ಡಿ.ವಿ.ಜಿ

16. 1974 ರಲ್ಲಿ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಯಾವುದು ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾಯಿತು?

a) ಮರಾಠಿ  b) ತೆಲುಗು  c) ಇಂಗ್ಲೀಷ್  d) ಕನ್ನಡ

17. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಹುಟ್ಟಿದ ಊರು?

a) ಮಂಡ್ಯ  b) ಹಂಪಸಂದ್ರ  c) ಮೈಸೂರು  d) ಹಂಪಿ

18. ಕನ್ನಡ ಭಾಷೆಗೆ _____ ವರ್ಷಗಳ ಇತಿಹಾಸ ಇದೆ.

a) ಎರಡು ಸಾವಿರ  b) ಒಂದು ಸಾವಿರ ಐದುನೂರು  c) ಐದು ಸಾವಿರ  d) ನಾಲ್ಕು ಸಾವಿರ

19. ಗುಂಪಿಗೆ ಸೇರದ ಪದ ತಿಳಿಸಿ:

a) ಕಂಪ್ಯೂಟರ್  b) ಜೆರಾಕ್ಸ್  c) ಗ್ರಂಥಾಲಯ  d) ಮೊಬೈಲ್

20. 1972 ನವೆಂಬರ್ 1ರಂದು ಯಾರ ಆಳ್ವಿಕೆಯಲ್ಲಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಎಂದು ನಾಮಕರಣವಾಯಿತು?

a) ಅಂಬೇಡ್ಕರ್
b) ದೇವರಾಜ್‌ಅರಸ್
c) ಪಂಜೇಮಂಗೇಶರಾಯರು
d) ಸರ್. ಥಾಮಸ್ ಮನ್ರೋ



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21. ಖಡಕ್ ಮೇಷ್ಟ್ರು ಎಂದು ಯಾರನ್ನು ಕರೆಯಲಾಯಿತು?
a) ಪ್ರಹ್ಲಾದ
b) ಗೋಪಣ್ಣ
c) ಇಸ್ಮಾಯಿಲ್
d) ಕರೀಂ ಸಾಬ್

22. ಗೋಪಣ್ಣ ಮಾಸ್ತಾರರ ಹೆಂಡತಿಯ ಹೆಸರೇನು?
a) ರುಕ್ಮಿಣಿಯಮ್ಮ
b) ರೇಖಾ
c) ರಾಧ
d) ರಮ್ಯ

23. ಮೆಗಾನೆ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಹೋಳಿ ಹುಣ್ಣಿಮೆಯೆಂದು ಯಾವ ನರ್ತನ ಮಾಡುತ್ತಾರೆ?
a) ಬಯಲಾಟ
b) ದೊಡ್ಡಾಟ
c) ಹೋಳಿ ಸಿಗ್ಮಾ ನರ್ತನ
d) ಯಕ್ಷಗಾನ

24. ಗೋಪಣ್ಣ ಹೆಂಡತಿಯು ಸಾವನ್ನಪ್ಪಿ ಎಷ್ಟು ವರ್ಷವಾಯಿತು?
a) 25 b) 20 c) 30 d) 21

25. ಯುಗಾದಿ ಕತೆಯ ಲೇಖಕರುಯಾರು?
a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ವಾಸುದೇಂದ್ರ
d) ಮೂರ್ತಿರಾವ್

26. ಮೆಗಾನೆ ಎಂಬುದುಒಂದು _____?
a) ಸ್ಥಳ b) ಮನೆ c) ಜನಾಂಗ d) ಪರ್ವತ

27. ಕುಣಬಿಯವರ ಮೂಲ ಎಲ್ಲಿನವರು?
a) ಗೋವಾ b) ಮಂಡ್ಯ c) ಧಾರವಾಡ d) ಹಾಸನ

28. ಮೆಗಾನೆ ಎಂಬ ಹಳ್ಳಿಯಲ್ಲಿ ಇರುವ ಜನಾಂಗ?
a) ಕೊಡವ b) ಕುಣಬಿ c) ಗೊಂಡ d) ಕಾಡುಜನ

29. ಗೋಪಣ್ಣ ಮಾಸ್ತರರು ಓದುತ್ತಿರುವ ಕಾವ್ಯ ಯಾವುದು?
a) ಮಹಾಭಾರತ
b) ರಾಮಾಯಣ
c) ಕುಮಾರವ್ಯಾಸ ಭಾರತ
d) ಭಗವದ್ಗೀತೆ

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30. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ ಪ್ರಬಂಧವನ್ನು ಯಾವ ಪ್ರವಾಸ ಕವನದಿಂದ ಆರಿಸಿಕೊಳ್ಳಲಾಗಿದೆ?
a) ಗಿರಿಜನ
b) ಮೆಗಾನೆ
c) ಗಿರಿಜನ ನಾಡಿಗೆ ಪಯಣ
d) ಆನೆಕಾಡು

31. ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿದಾಗ ಮಾನವ ಏನಾಗ ಬೇಕೆಂದು ಡಿ.ವಿ.ಜಿ ತಿಳಿಸಿದ್ದಾರೆ?
a) ನಯವಾಗಬೇಕು b) ಸ್ವಂತ ಇಚ್ಛೆಯಂತೆ c) ಕಲ್ಲಾಗಬೇಕು d) ಮಲ್ಲಿಗೆಯಾಗಬೇಕು

32. ಹೊಸಚಿಗುರು ಹಳೆಬೇರು ಕೂಡಿರಲು_____.
a) ಮರಸೊಬಗು b) ಹೊಸತತ್ವ c) ಹೊಸಜೀವನ d) ಹೊಸಯುಕ್ತಿ

33. ನಾಡಗೀತೆಯನ್ನು ರಚಿಸಿದ ಕವಿ ಯಾರು?
a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ರಾಜರತ್ನ d) ಪಿ.ಲಂಕೇಶ್

34. ಶಕ್ತಿ ಇಲ್ಲದವರಿಗೆ, ದೀನ ದುರ್ಬಲರ ಪಾಲಿಗೆ ಡಿ. ವಿ. ಜಿ.ಯವರು ಹೇಗಿರಬೇಕೆಂದು ಹೇಳಿದ್ದಾರೆ?
a) ಬೇವು-ಬೆಲ್ಲದಂತೆ
b) ಹಾಲು-ತುಪ್ಪದಂತೆ
c) ಬೆಲ್ಲ-ಸಕ್ಕರೆಯಂತೆ
d) ಮೇಲಿನ ಎಲ್ಲವೂ

35. ದ.ರಾ.ಬೇಂದ್ರೆಯವರ ಕಾವ್ಯನಾಮ?
a) ತೀ.ನಂ.ಶ್ರೀ b) ಕುವೆಂಪು c) ಡಿ.ವಿ.ಜಿ d) ಅಂಬಿಕಾತನಯದತ್ತ

36. ಡಿ.ವಿ.ಜಿ.ಯವರ ಕಾಲಘಟ್ಟ :
a) ನವೋದಯ b) ನವ್ಯ c) ಪ್ರಗತಿಶೀಲ d) ಬಂಡಾಯ

37. ಕುರುಡುಕಾಂಚಾಣ ಎಂಬ ಕಾವ್ಯವನ್ನು ಬೇಂದ್ರೆಯವರ ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೂಂಡಿದ್ದಾರೆ?
a)ನಾಕುತಂತಿ b) ನಾದಲೀಲೆ c) ಸಖಿಗೀತ d) ಪಕ್ಷಿಕಾಶಿ

38. ಕುರುಡುಕಾಂಚಾಣ ಹಣೆಯ ಬಂಡಾರವು ಯಾವುದರದಾಗಿತ್ತು?
a) ಅಧಿಕಾರವಂತರ
b) ಕೂಲಿಕಾರ್ಮಿಕರ
c) ಉದ್ಯಮಿಗಳ
d) ಮೇಲ್ವರ್ಗದವರ

39. ಗೆದ್ದಲು ಹುಳುಗಳು ತಾನು ಕಟ್ಟಿದ ಗೂಡು ಯಾರಿಗೆ ಆಶ್ರಯವಾಯಿತು?
a) ಸಣ್ಣಜೀವಿ
b) ಕ್ಷುದ್ರಜೀವಿ
c) ವಿಷಸರ್ಪ
d) ಮೇಲಿನ ಎಲ್ಲವೂ



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40. 12ನೇ ಶತಮಾನದಲ್ಲಿ ಕಂಡು ಬರುವ ಪ್ರಸಿದ್ಧ ವಚನಕಾರ?

a) ಬಸವಣ್ಣ
b) ಕವಿರಾಜ ಮಾರ್ಗ
c) ಪುರಂದರದಾಸ
d) ಕುವೆಂಪು

41. ಕಳ್ಳಗಂಜಿ ಕಾಡ ಹೊಕ್ಕೆಡೆ, ಹುಲಿ ತಿಂಬುದಮಾಬುದೇ? ಈ ಸಾಲನ್ನು ಬರೆದ ವಚನಕಾರರು ಯಾರು?
a) ಬಸವಣ್ಣ b) ಅಕ್ಕಮಹಾದೇವಿ c) ಅಲ್ಲಮಪ್ರಭು d) ಜೇಡರದಾಸಿಮಯ್ಯ

42 ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯನವರು ತ್ರಿವಿಧಗಳಿಗಿಂತ ಯಾವುದು ಶ್ರೇಷ್ಠ ಎಂದು ಬಿಂಬಿಸಿದ್ದಾರೆ?
a) ಧ್ಯಾನ b) ಗುರು c) ಕಾಯಕ d) ಭಕ್ತಿ

43. ಕರ್ನಾಟಕ ಸಂಗೀತ ಪಿತಾಮಹ ಎಂಬ ಹೆಸರಿಗೆ ಪಾತ್ರರಾದ ದಾಸಯಾರು?
a) ಪುರಂದರದಾಸರು
b) ಕನಕದಾಸರು
c) ವಾದಿರಾಜ
d) ಗೋಪಾಲದಾಸ

44. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ತತ್ವಪದಗಳ ರೂವಾರಿ ಯಾರು?
a) ಅಲ್ಲಮಪ್ರಭು
b) ಪುರಂದರದಾಸರು
c) ಕನಕದಾಸರು
d) ಶಿಶುನಾಳ ಷರೀಫ

45. ಬಸವಣ್ಣನವರ ವಚನದಲ್ಲಿ ಇಂದ್ರನು ಪರ್ವತವನ್ನು ಯಾವ ಆಯುಧದಿಂದ ನಾಶಪಡಿಸುತ್ತಾನೆ?
a) ವಜ್ರಾಯುಧ b) ಬಂದೂಕು c) ಸಲಾಕೆ d) ಮೇಲಿನ ಎಲ್ಲವೂ

46. ಗೂಬೆ ಎಂಬ ಪಕ್ಷಿ ಹಗಲಿನಲ್ಲಿ ತನಗೆ ಕಣ್ಣು ಕಾಣದೇ ಇರುವುದರಿಂದ ಯಾವುದನ್ನು ಬೈಯುವುದು?
a) ಚಂದ್ರ b) ದೇವರು c) ಸೂರ್ಯ d) ಕನ್ನಡಿ

47. ಜೇಡರ ದಾಸಿಮಯ್ಯನ ಅಂಕಿತನಾಮ?
a) ಕೂಡಲ ಸಂಗಮದೇವ b) ರಾಮನಾಥ c) ಗುಹೇಶ್ವರ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ

48. ಪ್ರಪಂಚದ ಜ್ಞಾನವನ್ನು ಸಂಪಾದನೆ ಮಾಡಿದ ಕುಂಬಾರಕಿ ಆ ಜ್ಞಾನವನ್ನು ಯಾರಿಗೆ ಸಮರ್ಪಿಸಿದಳು?
a) ಶಿಶುನಾಳಧೀಶನಿಗೆ b) ತನಗೆ c) ಪರರಿಗೆ d) ಮೇಲಿನ ಎಲ್ಲರಿಗೂ

49. ತದ್ಭವ ಬರೆಯಿರಿ: ಬ್ರಹ್ಮಾಂಡ
a) ಬ್ರಹ್ಮ b) ಬೊಮ್ಮ c) ಬೊಮ್ಮಾಂಡ d) ಬೊಂಬೆ

50. ಸಮಾನಾರ್ಥಕ ಪದ: ತನು
a) ಮಾನವ b) ಶರೀರ c) ಅಂಗಾಂಗ d) ಅಂತರಂಗ

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Question Paper Version : D

**First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

Time: 1 hrs. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿದಾಗ ಮಾನವ ಏನಾಗ ಬೇಕೆಂದು ಡಿ.ವಿ.ಜಿ ತಿಳಿಸಿದ್ದಾರೆ?
   a) ನಯವಾಗಬೇಕು b) ಸ್ವಂತ ಇಚ್ಛೆಯಂತೆ c) ಕಲ್ಲಾಗಬೇಕು d) ಮಲ್ಲಿಗೆಯಾಗಬೇಕು

2. ಹೊಸಚಿಗುರು ಹಳೆಬೇರು ಕೂಡಿರಲು_____.
   a) ಮರಸೊಬಗು b) ಹೊಸತತ್ವ c) ಹೊಸಜೀವನ d) ಹೊಸಯುಕ್ತಿ

3. ನಾಡಗೀತೆಯನ್ನು ರಚಿಸಿದ ಕವಿ ಯಾರು?
   a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ರಾಜರತ್ನ d) ಪಿ.ಲಂಕೇಶ್

4. ಶಕ್ತಿ ಇಲ್ಲದವರಿಗೆ, ದೀನ ದುರ್ಬಲರ ಪಾಲಿಗೆ ಡಿ. ವಿ. ಜಿ.ಯವರು ಹೇಗಿರಬೇಕೆಂದು ಹೇಳಿದ್ದಾರೆ?
   a) ಬೇವು-ಬೆಲ್ಲದಂತೆ
   b) ಹಾಲು-ತುಪ್ಪದಂತೆ
   c) ಬೆಲ್ಲ-ಸಕ್ಕರೆಯಂತೆ
   d) ಮೇಲಿನ ಎಲ್ಲವೂ

5. ದ.ರಾ.ಬೇಂದ್ರೆಯವರ ಕಾವ್ಯನಾಮ?
   a) ತೀ.ನಂ.ಶ್ರೀ b) ಕುವೆಂಪು c) ಡಿ.ವಿ.ಜಿ d) ಅಂಬಿಕಾತನಯದತ್ತ

6. ಡಿ.ವಿ.ಜಿ.ಯವರ ಕಾಲಘಟ್ಟ :
   a) ನವೋದಯ b) ನವ್ಯ c) ಪ್ರಗತಿಶೀಲ d) ಬಂಡಾಯ



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7. ಕುರುಡುಕಾಂಚಾಣ ಎಂಬ ಕಾವ್ಯವನ್ನು ಬೇಂಧ್ರೆಯವರ ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೂಂಡಿದ್ದಾರೆ?

a)ನಾಕುತಂತಿ b) ನಾದಲೀಲೆ c) ಸಖಿಗೀತ d) ಪಕ್ಷಿಕಾಶಿ

8. ಕುರುಡುಕಾಂಚಾಣ ಹಣೆಯ ಬಂಡಾರವು ಯಾವುದರದಾಗಿತ್ತು?

a) ಅಧಿಕಾರವಂತರ
b) ಕೂಲಿಕಾರ್ಮಿಕರ
c) ಉದ್ಯಮಿಗಳ
d) ಮೇಲ್ವರ್ಗದವರ

9. ಗೆದ್ದಲು ಹುಳುಗಳು ತಾನು ಕಟ್ಟಿದ ಗೂಡು ಯಾರಿಗೆ ಆಶ್ರಯವಾಯಿತು?

a) ಸಣ್ಣಜೀವಿ
b) ಕ್ಷುದ್ರಜೀವಿ
c) ವಿಷಸರ್ಪ
d) ಮೇಲಿನ ಎಲ್ಲವೂ

10. 12ನೇ ಶತಮಾನದಲ್ಲಿ ಕಂಡು ಬರುವ ಪ್ರಸಿದ್ಧ ವಚನಕಾರ?

a) ಬಸವಣ್ಣ
b) ಕವಿರಾಜ ಮಾರ್ಗ
c) ಪುರಂದರದಾಸ
d) ಕುವೆಂಪು

11. ಖಡಕ್ ಮೇಷ್ಟ್ರು ಎಂದು ಯಾರನ್ನು ಕರೆಯಲಾಯಿತು?

a) ಪ್ರಹ್ಲಾದ
b) ಗೋಪಣ್ಣ
c) ಇಸ್ಮಾಯಿಲ್
d) ಕರೀಂ ಸಾಬ್

12. ಗೋಪಣ್ಣ ಮಾಸ್ತರರ ಹೆಂಡತಿಯ ಹೆಸರೇನು?

a) ರುಕ್ಮಿಣಿಯಮ್ಮ
b) ರೇಖಾ
c) ರಾಧ
d) ರಮ್ಯ

13. ಮೆಗಾನೆ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಹೋಳಿ ಹುಣ್ಣಿಮೆಯೆಂದು ಯಾವ ನರ್ತನ ಮಾಡುತ್ತಾರೆ?

a) ಬಯಲಾಟ
b) ದೊಡ್ಡಾಟ
c) ಹೋಳಿ ಸಿಗ್ಮಾ ನರ್ತನ
d) ಯಕ್ಷಗಾನ



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14. ಗೋಪಣ್ಣ ಹೆಂಡತಿಯು ಸಾವನ್ನಪ್ಪಿ ಎಷ್ಟು ವರ್ಷವಾಯಿತು?
a) 25 b) 20 c) 30 d) 21

15. ಯುಗಾದಿ ಕತೆಯ ಲೇಖಕರು ಯಾರು?
a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ವಾಸುದೇಂದ್ರ
d) ಮೂರ್ತಿರಾವ್

16. ಮೆಗಾನೆ ಎಂಬುದು ಒಂದು _____?
a) ಸ್ಥಳ b) ಮನೆ c) ಜನಾಂಗ d) ಪರ್ವತ

17. ಕುಣಬಿಯವರ ಮೂಲ ಎಲ್ಲಿನವರು?
a) ಗೋವಾ b) ಮಂಡ್ಯ c) ಧಾರವಾಡ d) ಹಾಸನ

18. ಮೆಗಾನೆ ಎಂಬ ಹಳ್ಳಿಯಲ್ಲಿ ಇರುವ ಜನಾಂಗ?
a) ಕೊಡವ b) ಕುಣಬಿ c) ಗೊಂಡ d) ಕಾಡುಜನ

19. ಗೋಪಣ್ಣ ಮಾಸ್ತಾರರು ಓದುತ್ತಿರುವ ಕಾವ್ಯ ಯಾವುದು?
a) ಮಹಾಭಾರತ
b) ರಾಮಾಯಣ
c) ಕುಮಾರವ್ಯಾಸ ಭಾರತ
d) ಭಗವದ್ಗೀತೆ

20. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ ಪ್ರಬಂಧವನ್ನು ಯಾವ ಪ್ರವಾಸ ಕವನದಿಂದ ಆರಿಸಿಕೊಳ್ಳಲಾಗಿದೆ?
a) ಗಿರಿಜನ
b) ಮೆಗಾನೆ
c) ಗಿರಿಜನ ನಾಡಿಗೆ ಪಯಣ
d) ಆನೆಕಾಡು

21. ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಪಡೆದಿರುವ ದೇಶದ ಅತ್ಯುತ್ತಮ ಪ್ರಶಸ್ತಿ ಯಾವುದು?
a) ಕರ್ನಾಟಕರತ್ನ ಪ್ರಶಸ್ತಿ
b) ಭಾರತರತ್ನ ಪ್ರಶಸ್ತಿ
c) ಪದ್ಮಶ್ರೀ
d)ಪದ್ಮವಿಭೂಷಣ ಪ್ರಶಸ್ತಿ

22. ಕರಕುಶಲ ಕಲೆ =
a) ರಾಗಿ ಬಿತ್ತನೆ
b) ಗಡಿಗೆ ತಯಾರಿಕೆ
c) ರೇಷ್ಮೆ ಸಾಕಾಣಿಕೆ
d) ಮನೆ ಕೆಲಸ

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23. ಮೈಸೂರು-ಮಂಡ್ಯ ಸೀಮೆಯ ಕೆಳವರ್ಗದ ಸಮುದಾಯದಲ್ಲಿ ಜನಪ್ರಿಯವಾಗಿರುವ 'ಸಂತ'.
a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
b) ಮಂಟೆಸ್ವಾಮಿ
c) ಸರ್.ಎಂ.ವಿಶ್ವೇಶ್ವರಯ್ಯ
d) ಶಿಶುನಾಳ ಷರೀಫ್

24. ಕನ್ನಂಬಾಡಿ ಅಣೆಕಟ್ಟು ಯಾವ ನದಿಗೆ ಅಡ್ಡಲಾಗಿ ಕಟ್ಟಲಾಗಿದೆ?
a) ಕೃಷ್ಣ
b) ಕಾವೇರಿ
c) ನೇತ್ರಾವತಿ
d) ತುಂಗಭದ್ರಾ

25. ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ ಎಂಬ ಲೇಖನ ಯಾವ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?
a) ಸಮಗ್ರ ಲಲಿತ ಪ್ರಬಂಧಗಳು
b) ಮಲೆನಾಡು ಚಿತ್ರಗಳು
c) ಹೇಮಾವತಿ ತೀರ
d) ಬಕುಲದಹೂಗಳು

26. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಜನನ :
a) 15 ಸೆಪ್ಟೆಂಬರ್ 1860
b) 15 ಸೆಪ್ಟೆಂಬರ್ 1862
c)15 ಸೆಪ್ಟೆಂಬರ್ 1890
d) 15 ಸೆಪ್ಟೆಂಬರ್ 1870

27. ಕರಕುಶಲ ಕಲೆಗಳು ಮತ್ತು ಪರಂಪರೆಯ ವಿಜ್ಞಾನ ಲೇಖನದ ಲೇಖಕರು ಯಾರು?
a) ಕರೀಗೌಡಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ಮೂರ್ತಿರಾವ್
d) ವಾಸುದೇಂದ್ರ

28. ಬಣ್ಣಗಳನ್ನು ನೀಡುವಗಿಡಗಳು ಭಾರತದಲ್ಲಿ ಎಷ್ಟಿವೆ?
a) ಸು. 600
b) ಸು. 300
c) ಸು. 200
d) ಸು. 400



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29. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ___ ಕಲೆಗೆ ಮೂಲನೆಲೆ.
a) ಸಮಪಾಲುಚಿತ್ರ ಬಣ್ಣ
b) ಮುದ್ರಣ
c) ನೇಯ್ಗೆ
d) ಚಿತ್ರಬಣ್ಣ

30. ಕರ್ನಾಟಕದ ಅಭಿವೃದ್ಧಿಗೆ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಮಾಡಿದ ಮುಖ್ಯ ಕೆಲಸ ಯಾವುದು?
a) ಭಾರತೀಯ ವಿಶ್ವ ಬ್ಯಾಂಕ್
b) ಭದ್ರಾವತಿಯಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆ
c) ಬೆಂಗಳೂರಿನ ಮಹಿಳಾ ಕಾಲೇಜು
d) ಮೈಸೂರಿನ ಅರಮನೆ ಮೈದಾನ ಅಭಿವೃದ್ಧಿ

31. ಕಳ್ಳಗಂಜಿ ಕಾಡ ಹೊಕ್ಕೆಡೆ, ಹುಲಿ ತಿಂಬುದಮಾಬುದೇ? ಈ ಸಾಲನ್ನು ಬರೆದ ವಚನಕಾರರು ಯಾರು?
a) ಬಸವಣ್ಣ b) ಅಕ್ಕಮಹಾದೇವಿ c) ಅಲ್ಲಮಪ್ರಭು d) ಜೇಡರದಾಸಿಮಯ್ಯ

32. ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯನವರು ತ್ರಿವಿಧಗಳಿಗಿಂತ ಯಾವುದು ಶ್ರೇಷ್ಠ ಎಂದು ಬಿಂಬಿಸಿದ್ದಾರೆ?
a) ಧ್ಯಾನ b) ಗುರು c) ಕಾಯಕ d) ಭಕ್ತಿ

33. ಕರ್ನಾಟಕ ಸಂಗೀತ ಪಿತಾಮಹ ಎಂಬ ಹೆಸರಿಗೆ ಪಾತ್ರರಾದ ದಾಸಯಾರು?
a) ಪುರಂದರದಾಸರು
b) ಕನಕದಾಸರು
c) ವಾದಿರಾಜ
d) ಗೋಪಾಲದಾಸ

34. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ತತ್ವಪದಗಳ ರೂವಾರಿ ಯಾರು?
a) ಅಲ್ಲಮಪ್ರಭು
b) ಪುರಂದರದಾಸರು
c) ಕನಕದಾಸರು
d) ಶಿಶುನಾಳ ಷರೀಫ

35. ಬಸವಣ್ಣನವರ ವಚನದಲ್ಲಿ ಇಂದ್ರನು ಪರ್ವತವನ್ನು ಯಾವ ಆಯುಧದಿಂದ ನಾಶಪಡಿಸುತ್ತಾನೆ?
a) ವಜ್ರಾಯುಧ b) ಬಂದೂಕು c) ಸಲಾಕೆ d) ಮೇಲಿನ ಎಲ್ಲವೂ

36. ಗೂಬೆ ಎಂಬ ಪಕ್ಷಿ ಹಗಲಿನಲ್ಲಿ ತನಗೆ ಕಣ್ಣು ಕಾಣದೇ ಇರುವುದರಿಂದ ಯಾವುದನ್ನು ಬೈಯುವುದು?
a) ಚಂದ್ರ b) ದೇವರು c) ಸೂರ್ಯ d) ಕನ್ನಡಿ

37. ಜೇಡರ ದಾಸಿಮಯ್ಯನ ಅಂಕಿತನಾಮ?
a) ಕೂಡಲ ಸಂಗಮದೇವ b) ರಾಮನಾಥ c) ಗುಹೇಶ್ವರ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ



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38. ಪ್ರಪಂಚದ ಜ್ಞಾನವನ್ನು ಸಂಪಾದನೆ ಮಾಡಿದ ಕುಂಬಾರಕಿ ಆ ಜ್ಞಾನವನ್ನು ಯಾರಿಗೆ ಸಮರ್ಪಿಸಿದಳು?
a) ಶಿಶುನಾಳಧೀಶನಿಗೆ b) ತನಗೆ c) ಪರರಿಗೆ d) ಮೇಲಿನ ಎಲ್ಲರಿಗೂ

39. ತದ್ಭವ ಬರೆಯಿರಿ: ಬ್ರಹ್ಮಾಂಡ
a) ಬ್ರಹ್ಮ b) ಬೊಮ್ಮ c) ಬೊಮ್ಮಾಂಡ d) ಬೊಂಬೆ

40. ಸಮಾನಾರ್ಥಕ ಪದ: ತನು
a) ಮಾನವ b) ಶರೀರ c) ಅಂಗಾಂಗ d) ಅಂತರಂಗ

41. ಸೈನಿಕರ ವೀರಜೀವನವನ್ನು ತಿಳಿಸುವ ಶಾಸನ ತಿಳಿಸಿ?
a) ಬೇಲೂರಿನ ಶಾಸನ b) ಶ್ರವಣಬೆಳಗೊಳ ಶಾಸನ
c) ವೀರಗಲ್ಲು ಶಾಸನ d) ಬಾದಾಮಿ ಶಾಸನ

42 ಅಕ್ಕನ ವಚನದ ಪ್ರಕಾರ ಹಸಿವಾದರೆ ಊರೊಳಗೆ ಬಿಕ್ಷಾನ್ನಗಳುಂಟು, ತೃಷೆಯಾದರೆ _____ ಹಳ್ಳಗಳುಂಟು
a) ಹಳ್ಳಕೊಳ್ಳ b) ಕೆರೆಬಾವಿ c) ಬೆಟ್ಟಗುಡ್ಡ d) ಕಟ್ಟೆ

43. ಕರ್ನಾಟಕ ಗತವೈಭವ ಗ್ರಂಥದ ಕರ್ತೃ ಯಾರು?
a) ದೇವರಾಜ್‌ಅರಸ್ b) ಆಲೂರು ವೆಂಕಟರಾಯರು c) ಬಿ.ಎಂ.ಶ್ರೀ d) ಕುವೆಂಪು

44. ವಿನೋಬಾ ಭಾವೆಯವರು ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಏನೆಂದು ಕರೆದರು?
a) ಲಿಪಿಗಳ ರಾಜ b) ಲಿಪಿಗಳ ರಾಣಿ
c) ಲಿಪಿಗಳ ಅಲಂಕಾರ d) ಅಲಂಕಾರ

45. 1955 ರಲ್ಲಿರಾಯಚೂರಿನಲ್ಲಿ ನಡೆದಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಸಮ್ಮೇಳನದ ಅಧ್ಯಕ್ಷರುಯಾರು?
a) ಶ್ರೀರಂಗರು b) ದ.ರಾ.ಬೇಂದ್ರೆ c) ಚಂದ್ರಶೇಖರಕಂಬಾರ d) ಡಿ.ವಿ.ಜಿ

46. 1974 ರಲ್ಲಿ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಯಾವುದು ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾಯಿತು?
a) ಮರಾಠಿ b) ತೆಲುಗು c) ಇಂಗ್ಲೀಷ್ d) ಕನ್ನಡ

47. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಹುಟ್ಟಿದ ಊರು?
a) ಮಂಡ್ಯ b) ಹಂಪಸಂದ್ರ c) ಮೈಸೂರು d) ಹಂಪಿ

48. ಕನ್ನಡ ಭಾಷೆಗೆ _____ ವರ್ಷಗಳ ಇತಿಹಾಸ ಇದೆ.
a) ಎರಡು ಸಾವಿರ b) ಒಂದು ಸಾವಿರ ಐದುನೂರು c) ಐದು ಸಾವಿರ d) ನಾಲ್ಕು ಸಾವಿರ

49. ಗುಂಪಿಗೆ ಸೇರದ ಪದ ತಿಳಿಸಿ:
a) ಕಂಪ್ಯೂಟರ್ b) ಜೆರಾಕ್ಸ್ c) ಗ್ರಂಥಾಲಯ d) ಮೊಬೈಲ್

50. 1972 ನವೆಂಬರ್ 1ರಂದು ಯಾರ ಆಳ್ವಿಕೆಯಲ್ಲಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಎಂದು ನಾಮಕರಣವಾಯಿತು?
a) ಅಂಬೇಡ್ಕರ್
b) ದೇವರಾಜ್‌ಅರಸ್
c) ಪಂಜೇಮಂಗೇಶರಾಯರು
d) ಸರ್. ಥಾಮಸ್ ಮನ್ರೋ

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Question Paper Version : A

**First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

Time: 1 hrs. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಸೈನಿಕರ ವೀರಜೀವನವನ್ನು ತಿಳಿಸುವ ಶಾಸನ ತಿಳಿಸಿ?
   a) ಬೇಲೂರಿನ ಶಾಸನ
   b) ಶ್ರವಣಬೆಳಗೊಳ ಶಾಸನ
   c) ವೀರಗಲ್ಲು ಶಾಸನ
   d) ಬಾದಾಮಿ ಶಾಸನ

2. ಅಕ್ಕನ ವಚನದ ಪ್ರಕಾರ ಹಸಿವಾದರೆ ಊರೊಳಗೆ ಬಿಕ್ಷಾನ್ನಗಳುಂಟು, ತೃಷೆಯಾದರೆ ____ ಹಳ್ಳಗಳುಂಟು
   a) ಹಳ್ಳಕೊಳ್ಳ
   b) ಕೆರೆಬಾವಿ
   c) ಬೆಟ್ಟಗುಡ್ಡ
   d) ಕಟ್ಟೆ

3. ಕರ್ನಾಟಕ ಗತವೈಭವ ಗ್ರಂಥದ ಕರ್ತೃ ಯಾರು?
   a) ದೇವರಾಜ್‌ಅರಸ್
   b) ಆಲೂರು ವೆಂಕಟರಾಯರು
   c) ಬಿ.ಎಂ.ಶ್ರೀ
   d) ಕುವೆಂಪು

4. ವಿನೋಬಾ ಭಾವೆಯವರು ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಏನೆಂದು ಕರೆದರು?
   a) ಲಿಪಿಗಳ ರಾಜ
   b) ಲಿಪಿಗಳ ರಾಣಿ
   c) ಲಿಪಿಗಳ ಅಲಂಕಾರ
   d) ಅಲಂಕಾರ

5. 1955 ರಲ್ಲಿ ರಾಯಚೂರಿನಲ್ಲಿ ನಡೆದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಸಮ್ಮೇಳನದ ಅಧ್ಯಕ್ಷರು ಯಾರು?
   a) ಶ್ರೀರಂಗರು
   b) ದ.ರಾ.ಬೇಂದ್ರೆ
   c) ಚಂದ್ರಶೇಖರಕಂಬಾರ
   d) ಡಿ.ವಿ.ಜಿ



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6. 1974 ರಲ್ಲಿ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಯಾವುದು ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾಯಿತು?
a) ಮರಾಠಿ b) ತೆಲುಗು c) ಇಂಗ್ಲೀಷ್ d) ಕನ್ನಡ

7. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಹುಟ್ಟಿದ ಊರು?
a) ಮಂಡ್ಯ b) ಹಂಪ ಸಂದ್ರ c) ಮೈಸೂರು d) ಹಂಪಿ

8. ಕನ್ನಡ ಭಾಷೆಗೆ _____ ವರ್ಷಗಳ ಇತಿಹಾಸ ಇದೆ.
a) ಎರಡು ಸಾವಿರ b) ಒಂದು ಸಾವಿರ ಐದುನೂರು c) ಐದು ಸಾವಿರ d) ನಾಲ್ಕು ಸಾವಿರ

9. ಗುಂಪಿಗೆ ಸೇರದ ಪದ ತಿಳಿಸಿ:
a) ಕಂಪ್ಯೂಟರ್ b) ಜೆರಾಕ್ಸ್ c) ಗ್ರಂಥಾಲಯ d) ಮೊಬೈಲ್

10. 1972 ನವೆಂಬರ್ 1ರಂದು ಯಾರ ಆಳ್ವಿಕೆಯಲ್ಲಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಎಂದು ನಾಮಕರಣವಾಯಿತು?
a) ಅಂಬೇಡ್ಕರ್
b) ದೇವರಾಜ್‌ಅರಸ್
c) ಪಂಜೇಮಂಗೇಶರಾಯರು
d) ಸರ್. ಥಾಮಸ್ ಮನ್ರೋ

11. ಕಳ್ಳಗಂಜಿ ಕಾಡ ಹೊಕ್ಕೆಡೆ, ಹುಲಿ ತಿಂಬುದಮಾಬುದೇ? ಈ ಸಾಲನ್ನು ಬರೆದ ವಚನಕಾರರು ಯಾರು?
a) ಬಸವಣ್ಣ b) ಅಕ್ಕಮಹಾದೇವಿ c) ಅಲ್ಲಮಪ್ರಭು d) ಜೇಡರದಾಸಿಮಯ್ಯ

12. ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯನವರು ತ್ರಿವಿಧಗಳಿಗಿಂತ ಯಾವುದು ಶ್ರೇಷ್ಠ ಎಂದು ಬಿಂಬಿಸಿದ್ದಾರೆ?
a) ಧ್ಯಾನ b) ಗುರು c) ಕಾಯಕ d) ಭಕ್ತಿ

13. ಕರ್ನಾಟಕ ಸಂಗೀತ ಪಿತಾಮಹ ಎಂಬ ಹೆಸರಿಗೆ ಪಾತ್ರರಾದ ದಾಸ ಯಾರು?
a) ಪುರಂದರದಾಸರು
b) ಕನಕದಾಸರು
c) ವಾದಿರಾಜ
d) ಗೋಪಾಲದಾಸ

14. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ತತ್ವಪದಗಳ ರೂವಾರಿ ಯಾರು?
a) ಅಲ್ಲಮಪ್ರಭು
b) ಪುರಂದರದಾಸರು
c) ಕನಕದಾಸರು
d) ಶಿಶುನಾಳ ಷರೀಫ

15. ಬಸವಣ್ಣನವರ ವಚನದಲ್ಲಿ ಇಂದ್ರನು ಪರ್ವತವನ್ನು ಯಾವ ಆಯುಧದಿಂದ ನಾಶಪಡಿಸುತ್ತಾನೆ?
a) ವಜ್ರಾಯುಧ b) ಬಂದೂಕು c) ಸಲಾಕೆ d) ಮೇಲಿನ ಎಲ್ಲವೂ

16. ಗೂಬೆ ಎಂಬ ಪಕ್ಷಿ ಹಗಲಿನಲ್ಲಿ ತನಗೆ ಕಣ್ಣು ಕಾಣದೇ ಇರುವುದರಿಂದ ಯಾವುದನ್ನು ಬೈಯುವುದು?
a) ಚಂದ್ರ b) ದೇವರು c) ಸೂರ್ಯ d) ಕನ್ನಡಿ

17. ಜೇಡರ ದಾಸಿಮಯ್ಯನ ಅಂಕಿತನಾಮ?
a) ಕೂಡಲ ಸಂಗಮದೇವ b) ರಾಮನಾಥ c) ಗುಹೇಶ್ವರ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ



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18. ಪ್ರಪಂಚದ ಜ್ಞಾನವನ್ನು ಸಂಪಾದನೆ ಮಾಡಿದ ಕುಂಬಾರಕಿ ಆ ಜ್ಞಾನವನ್ನು ಯಾರಿಗೆ ಸಮರ್ಪಿಸಿದಳು?
a) ಶಿಶುನಾಳಧೀಶನಿಗೆ b) ತನಗೆ c) ಪರರಿಗೆ d) ಮೇಲಿನ ಎಲ್ಲರಿಗೂ

19. ತದ್ಭವ ಬರೆಯಿರಿ: ಬ್ರಹ್ಮಾಂಡ
a) ಬ್ರಹ್ಮ b) ಬೊಮ್ಮ c) ಬೊಮ್ಮಾಂಡ d) ಬೊಂಬೆ

20. ಸಮಾನಾರ್ಥಕ ಪದ: ತನು
a) ಮಾನವ b) ಶರೀರ c) ಅಂಗಾಂಗ d) ಅಂತರಂಗ

21. ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿದಾಗ ಮಾನವ ಏನಾಗ ಬೇಕೆಂದು ಡಿ.ವಿ.ಜಿ ತಿಳಿಸಿದ್ದಾರೆ?
a) ನಯವಾಗಬೇಕು b) ಸ್ವಂತ ಇಚ್ಛೆಯಂತೆ c) ಕಲ್ಲಾಗಬೇಕು d) ಮಲ್ಲಿಗೆಯಾಗಬೇಕು

22. ಹೊಸಚಿಗುರು ಹಳೆಬೇರು ಕೂಡಿರಲು_____.
a) ಮರಸೊಬಗು b) ಹೊಸತತ್ವ c) ಹೊಸಜೀವನ d) ಹೊಸಯುಕ್ತಿ

23. ನಾಡಗೀತೆಯನ್ನು ರಚಿಸಿದ ಕವಿ ಯಾರು?
a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ರಾಜರತ್ನ d) ಪಿ.ಲಂಕೇಶ್

24. ಶಕ್ತಿ ಇಲ್ಲದವರಿಗೆ, ದೀನ ದುರ್ಬಲರ ಪಾಲಿಗೆ ಡಿ. ವಿ. ಜಿ.ಯವರು ಹೇಗಿರಬೇಕೆಂದು ಹೇಳಿದ್ದಾರೆ?
a) ಬೇವು-ಬೆಲ್ಲದಂತೆ
b) ಹಾಲು-ತುಪ್ಪದಂತೆ
c) ಬೆಲ್ಲ-ಸಕ್ಕರೆಯಂತೆ
d) ಮೇಲಿನ ಎಲ್ಲವೂ

25. ದ.ರಾ.ಬೇಂದ್ರೆಯವರ ಕಾವ್ಯನಾಮ?
a) ತೀ.ನಂ.ಶ್ರೀ b) ಕುವೆಂಪು c) ಡಿ.ವಿ.ಜಿ d) ಅಂಬಿಕಾತನಯದತ್ತ

26. ಡಿ.ವಿ.ಜಿ.ಯವರ ಕಾಲಘಟ್ಟ :
a) ನವೋದಯ b) ನವ್ಯ c) ಪ್ರಗತಿಶೀಲ d) ಬಂಡಾಯ

27. ಕುರುಡುಕಾಂಚಾಣ ಎಂಬ ಕಾವ್ಯವನ್ನು ಬೇಂಧ್ರೆಯವರ ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೂಂಡಿದ್ದಾರೆ?
a)ನಾಕುತಂತಿ b) ನಾದಲೀಲೆ c) ಸಖಿಗೀತ d) ಪಕ್ಷಿಕಾಶಿ

28. ಕುರುಡುಕಾಂಚಾಣ ಹಣೆಯ ಬಂಡಾರವು ಯಾವುದರದಾಗಿತ್ತು?
a) ಅಧಿಕಾರವಂತರ
b) ಕೂಲಿಕಾರ್ಮಿಕರ
c) ಉದ್ಯಮಿಗಳ
d) ಮೇಲ್ವರ್ಗದವರ

29. ಗೆದ್ದಲು ಹುಳುಗಳು ತಾನು ಕಟ್ಟಿದ ಗೂಡು ಯಾರಿಗೆ ಆಶ್ರಯವಾಯಿತು?
a) ಸಣ್ಣಜೀವಿ
b) ಕ್ಷುದ್ರಜೀವಿ
c) ವಿಷಸರ್ಪ
d) ಮೇಲಿನ ಎಲ್ಲವೂ



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30. 12ನೇ ಶತಮಾನದಲ್ಲಿ ಕಂಡು ಬರುವ ಪ್ರಸಿದ್ಧ ವಚನಕಾರ?

a) ಬಸವಣ್ಣ
b) ಕವಿರಾಜ ಮಾರ್ಗ
c) ಪುರಂದರದಾಸ
d) ಕುವೆಂಪು

31. ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಪಡೆದಿರುವ ದೇಶದ ಅತ್ಯುತ್ತಮ ಪ್ರಶಸ್ತಿ ಯಾವುದು?

a) ಕರ್ನಾಟಕರತ್ನ ಪ್ರಶಸ್ತಿ
b) ಭಾರತರತ್ನ ಪ್ರಶಸ್ತಿ
c) ಪದ್ಮಶ್ರೀ
d) ಪದ್ಮವಿಭೂಷಣ ಪ್ರಶಸ್ತಿ

32. ಕರಕುಶಲ ಕಲೆ =

a) ರಾಗಿ ಬಿತ್ತನೆ
b) ಗಡಿಗೆ ತಯಾರಿಕೆ
c) ರೇಷ್ಮೆ ಸಾಕಾಣಿಕೆ
d) ಮನೆ ಕೆಲಸ

33. ಮೈಸೂರು-ಮಂಡ್ಯ ಸೀಮೆಯ ಕೆಳವರ್ಗದ ಸಮುದಾಯದಲ್ಲಿ ಜನಪ್ರಿಯವಾಗಿರುವ 'ಸಂತ'.

a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
b) ಮಂಟೆಸ್ವಾಮಿ
c) ಸರ್.ಎಂ.ವಿಶ್ವೇಶ್ವರಯ್ಯ
d) ಶಿಶುನಾಳ ಷರೀಫ್

34. ಕನ್ನಂಬಾಡಿ ಅಣೆಕಟ್ಟು ಯಾವ ನದಿಗೆ ಅಡ್ಡಲಾಗಿ ಕಟ್ಟಲಾಗಿದೆ?

a) ಕೃಷ್ಣ
b) ಕಾವೇರಿ
c) ನೇತ್ರಾವತಿ
d) ತುಂಗಭದ್ರಾ

35. ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ ಎಂಬ ಲೇಖನ ಯಾವ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?

a) ಸಮಗ್ರ ಲಲಿತ ಪ್ರಬಂಧಗಳು
b) ಮಲೆನಾಡು ಚಿತ್ರಗಳು
c) ಹೇಮಾವತಿ ತೀರ
d) ಬಕುಲದ ಹೂಗಳು

36. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಜನನ :

a) 15 ಸೆಪ್ಟೆಂಬರ್ 1860
b) 15 ಸೆಪ್ಟೆಂಬರ್ 1862
c)15 ಸೆಪ್ಟೆಂಬರ್ 1890
d) 15 ಸೆಪ್ಟೆಂಬರ್ 1870



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37. ಕರಕುಶಲ ಕಲೆಗಳು ಮತ್ತು ಪರಂಪರೆಯ ವಿಜ್ಞಾನ ಲೇಖನದ ಲೇಖಕರು ಯಾರು?

a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ

b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ

c) ಮೂರ್ತಿರಾವ್

d) ವಾಸುದೇಂದ್ರ

38. ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಗಿಡಗಳು ಭಾರತದಲ್ಲಿ ಎಷ್ಟಿವೆ?

a) ಸು. 600

b) ಸು. 300

c) ಸು. 200

d) ಸು. 400

39. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ___ ಕಲೆಗೆ ಮೂಲ ನೆಲೆ.

a) ಸಮಪಾಲುಚಿತ್ರ ಬಣ್ಣ

b) ಮುದ್ರಣ

c) ನೇಯ್ಗೆ

d) ಚಿತ್ರಬಣ್ಣ

40. ಕರ್ನಾಟಕದ ಅಭಿವೃದ್ಧಿಗೆ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಮಾಡಿದ ಮುಖ್ಯ ಕೆಲಸ ಯಾವುದು?

a) ಭಾರತೀಯ ವಿಶ್ವ ಬ್ಯಾಂಕ್

b) ಭದ್ರಾವತಿಯ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆ

c) ಬೆಂಗಳೂರಿನ ಮಹಿಳಾ ಕಾಲೇಜು

d) ಮೈಸೂರಿನ ಅರಮನೆ ಮೈದಾನ ಅಭಿವೃದ್ಧಿ

41. ಖಡಕ್ ಮೇಷ್ಟ್ರು ಎಂದು ಯಾರನ್ನು ಕರೆಯಲಾಯಿತು?

a) ಪ್ರಹ್ಲಾದ

b) ಗೋಪಣ್ಣ

c) ಇಸ್ಮಾಯಿಲ್

d) ಕರೀಂ ಸಾಬ್

42 ಗೋಪಣ್ಣ ಮಾಸ್ತರರು ಹೆಂಡತಿಯ ಹೆಸರೇನು?

a) ರುಕ್ಮಿಣಿಯಮ್ಮ

b) ರೇಖಾ

c) ರಾಧ

d) ರಮ್ಯ



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43. ಮೆಗಾನೆ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಹೋಳಿ ಹುಣ್ಣಿಮೆಯಂದು ಯಾವ ನರ್ತನ ಮಾಡುತ್ತಾರೆ?
a) ಬಯಲಾಟ
b) ದೊಡ್ಡಾಟ
c) ಹೋಳಿ ಸಿಗ್ಮಾ ನರ್ತನ
d) ಯಕ್ಷಗಾನ

44. ಗೋಪಣ್ಣ ಹೆಂಡತಿಯು ಸಾವನ್ನಪ್ಪಿ ಎಷ್ಟು ವರ್ಷವಾಯಿತು?
a) 25 b) 20 c) 30 d) 21

45. ಯುಗಾದಿ ಕತೆಯ ಲೇಖಕರು ಯಾರು?
a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ವಾಸುದೇಂದ್ರ
d) ಮೂರ್ತಿರಾವ್

46. ಮೆಗಾನೆ ಎಂಬುದು ಒಂದು _____?
a) ಸ್ಥಳ b) ಮನೆ c) ಜನಾಂಗ d) ಪರ್ವತ

47. ಕುಣಬಿಯವರ ಮೂಲ ಎಲ್ಲಿನವರು?
a) ಗೋವಾ b) ಮಂಡ್ಯ c) ಧಾರವಾಡ d) ಹಾಸನ

48. ಮೆಗಾನೆ ಎಂಬ ಹಳ್ಳಿಯಲ್ಲಿ ಇರುವ ಜನಾಂಗ?
a) ಕೊಡವ b) ಕುಣಬಿ c) ಗೊಂಡ d) ಕಾಡುಜನ

49. ಗೋಪಣ್ಣ ಮಾಸ್ತಾರರು **ಓದುತ್ತಿರುವ** ಕಾವ್ಯ ಯಾವುದು?
a)ಮಹಾಭಾರತ
b) ರಾಮಾಯಣ
c) ಕುಮಾರವ್ಯಾಸ ಭಾರತ
d) ಭಗವದ್ಗೀತೆ

50. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ ಪ್ರಬಂಧವನ್ನು ಯಾವ ಪ್ರವಾಸ ಕವನದಿಂದ ಆರಿಸಿಕೊಳ್ಳಲಾಗಿದೆ?
a) ಗಿರಿಜನ
b) ಮೆಗಾನೆ
c) ಗಿರಿಜನ ನಾಡಿಗೆ ಪಯಣ
d) ಆನೆಕಾಡು

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Question Paper Version : B

**First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

Time: 1 hrs. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಖಡಕ್ ಮೇಷ್ಟ್ರು ಎಂದು ಯಾರನ್ನು ಕರೆಯಲಾಯಿತು?
   a) ಪ್ರಹ್ಲಾದ
   b) ಗೋಪಣ್ಣ
   c) ಇಸ್ಮಾಯಿಲ್
   d) ಕರೀಂ ಸಾಬ್
2. ಗೋಪಣ್ಣ ಮಾಸ್ತರರು ಹೆಂಡತಿಯ ಹೆಸರೇನು?
   a) ರುಕ್ಮಿಣಿಯಮ್ಮ
   b) ರೇಖಾ
   c) ರಾಧ
   d) ರಮ್ಯ
3. ಮೆಗಾನೆ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಹೋಳಿ ಹುಣ್ಣಿಮೆ ಯೆಂದು ಯಾವ ನರ್ತನ ಮಾಡುತ್ತಾರೆ?
   a) ಬಯಲಾಟ
   b) ದೊಡ್ಡಾಟ
   c) ಹೋಳಿ ಸಿಗ್ಮಾ ನರ್ತನ
   d) ಯಕ್ಷಗಾನ



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4. ಗೋಪಣ್ಣ ಹೆಂಡತಿಯು ಸಾವನ್ನಪ್ಪಿ ಎಷ್ಟು ವರ್ಷವಾಯಿತು?
   a) 25 b) 20 c) 30 d) 21

5. ಯುಗಾದಿ ಕತೆಯ ಲೇಖಕರು ಯಾರು?
   a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ
   b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
   c) ವಾಸುದೇಂದ್ರ
   d) ಮೂರ್ತಿರಾವ್

6. ಮೆಗಾನೆ ಎಂಬುದು ಒಂದು _____?
   a) ಸ್ಥಳ b) ಮನೆ c) ಜನಾಂಗ d) ಪರ್ವತ

7. ಕುಣಬಿಯವರ ಮೂಲ ಎಲ್ಲಿನವರು?
   a) ಗೋವಾ b) ಮಂಡ್ಯ c) ಧಾರವಾಡ d) ಹಾಸನ

8. ಮೆಗಾನೆ ಎಂಬ ಹಳ್ಳಿಯಲ್ಲಿ ಇರುವ ಜನಾಂಗ?
   a) ಕೊಡವ b) ಕುಣಬಿ c) ಗೊಂಡ d) ಕಾಡುಜನ

9. ಗೋಪಣ್ಣ ಮಾಸ್ತರರು ಓದುತ್ತಿರುವ ಕಾವ್ಯ ಯಾವುದು?
   a) ಮಹಾಭಾರತ
   b) ರಾಮಾಯಣ
   c) ಕುಮಾರವ್ಯಾಸ ಭಾರತ
   d) ಭಗವದ್ಗೀತೆ

10. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ ಪ್ರಬಂಧವನ್ನು ಯಾವ ಪ್ರವಾಸ ಕವನದಿಂದ ಆರಿಸಿಕೊಳ್ಳಲಾಗಿದೆ?
   a) ಗಿರಿಜನ
   b) ಮೆಗಾನೆ
   c) ಗಿರಿಜನ ನಾಡಿಗೆ ಪಯಣ
   d) ಆನೆಕಾಡು

11. ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಪಡೆದಿರುವ ದೇಶದ ಅತ್ಯುತ್ತಮ ಪ್ರಶಸ್ತಿ ಯಾವುದು?
   a) ಕರ್ನಾಟಕರತ್ನ ಪ್ರಶಸ್ತಿ
   b) ಭಾರತರತ್ನ ಪ್ರಶಸ್ತಿ
   c) ಪದ್ಮಶ್ರೀ
   d) ಪದ್ಮವಿಭೂಷಣ ಪ್ರಶಸ್ತಿ

12. ಕರಕುಶಲ ಕಲೆ =
   a) ರಾಗಿ ಬಿತ್ತನೆ
   b) ಗಡಿಗೆ ತಯಾರಿಕೆ
   c) ರೇಷ್ಮೆ ಸಾಕಾಣಿಕೆ
   d) ಮನೆ ಕೆಲಸ



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13. ಮೈಸೂರು-ಮಂಡ್ಯ ಸೀಮೆಯ ಕೆಳವರ್ಗದ ಸಮುದಾಯದಲ್ಲಿ ಜನಪ್ರಿಯವಾಗಿರುವ 'ಸಂತ'.
a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
b) ಮಂಟೆಸ್ವಾಮಿ
c) ಸರ್.ಎಂ.ವಿಶ್ವೇಶ್ವರಯ್ಯ
d) ಶಿಶುನಾಳ ಷರೀಫ್

14. ಕನ್ನಂಬಾಡಿ ಅಣೆಕಟ್ಟು ಯಾವ ನದಿಗೆ ಅಡ್ಡಲಾಗಿಕಟ್ಟಲಾಗಿದೆ?
a) ಕೃಷ್ಣ
b) ಕಾವೇರಿ
c) ನೇತ್ರಾವತಿ
d) ತುಂಗಭದ್ರಾ

15. ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ ಎಂಬ ಲೇಖನ ಯಾವ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?
a) ಸಮಗ್ರ ಲಲಿತ ಪ್ರಬಂಧಗಳು
b) ಮಲೆನಾಡು ಚಿತ್ರಗಳು
c) ಹೇಮಾವತಿ ತೀರ
d) ಬಕುಲದಹೂಗಳು

16. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಜನನ :
a) 15 ಸೆಪ್ಟೆಂಬರ್ 1860
b) 15 ಸೆಪ್ಟೆಂಬರ್ 1862
c)15 ಸೆಪ್ಟೆಂಬರ್ 1890
d) 15 ಸೆಪ್ಟೆಂಬರ್ 1870

17. ಕರಕುಶಲ ಕಲೆಗಳು ಮತ್ತು ಪರಂಪರೆಯ ವಿಜ್ಞಾನ ಲೇಖನದ ಲೇಖಕರು ಯಾರು?
a) ಕರೀಗೌಡಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ಮೂರ್ತಿರಾವ್
d) ವಾಸುದೇಂದ್ರ

18. ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಗಿಡಗಳು ಭಾರತದಲ್ಲಿ ಎಷ್ಟಿವೆ?
a) ಸು. 600
b) ಸು. 300
c) ಸು. 200
d) ಸು. 400



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19. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ___ ಕಲೆಗೆ ಮೂಲನೆಲೆ.
a) ಸಮಪಾಲು ಚಿತ್ರ ಬಣ್ಣ
b) ಮುದ್ರಣ
c) ನೇಯ್ಗೆ
d) ಚಿತ್ರಬಣ್ಣ

20. ಕರ್ನಾಟಕದ ಅಭಿವೃದ್ಧಿಗೆ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಮಾಡಿದ ಮುಖ್ಯ ಕೆಲಸ ಯಾವುದು?
a) ಭಾರತೀಯ ವಿಶ್ವ ಬ್ಯಾಂಕ್
b) ಭದ್ರಾವತಿಯ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆ
c) ಬೆಂಗಳೂರಿನ ಮಹಿಳಾ ಕಾಲೇಜು
d) ಮೈಸೂರಿನ ಅರಮನೆ ಮೈದಾನ ಅಭಿವೃದ್ಧಿ

21. ಕಳ್ಳಗಂಜಿ ಕಾಡ ಹೊಕ್ಕೆಡೆ, ಹುಲಿ ತಿಂಬುದಮಾಬುದೇ? ಈ ಸಾಲನ್ನು ಬರೆದ ವಚನಕಾರರು ಯಾರು?
a) ಬಸವಣ್ಣ b) ಅಕ್ಕಮಹಾದೇವಿ c) ಅಲ್ಲಮಪ್ರಭು d) ಜೇಡರದಾಸಿಮಯ್ಯ

22. ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯನವರು ತ್ರಿವಿಧಗಳಿಗಿಂತ ಯಾವುದು ಶ್ರೇಷ್ಠ ಎಂದು ಬಿಂಬಿಸಿದ್ದಾರೆ?
a) ಧ್ಯಾನ b) ಗುರು c) ಕಾಯಕ d) ಭಕ್ತಿ

23. ಕರ್ನಾಟಕ ಸಂಗೀತ ಪಿತಾಮಹ ಎಂಬ ಹೆಸರಿಗೆ ಪಾತ್ರರಾದ ದಾಸಯಾರು?
a) ಪುರಂದರದಾಸರು
b) ಕನಕದಾಸರು
c) ವಾದಿರಾಜ
d) ಗೋಪಾಲದಾಸ

24. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ತತ್ವಪದಗಳ ರೂವಾರಿ ಯಾರು?
a) ಅಲ್ಲಮಪ್ರಭು
b) ಪುರಂದರದಾಸರು
c) ಕನಕದಾಸರು
d) ಶಿಶುನಾಳ ಷರೀಫ

25. ಬಸವಣ್ಣನವರ ವಚನದಲ್ಲಿ ಇಂದ್ರನು ಪರ್ವತವನ್ನು ಯಾವ ಆಯುಧದಿಂದ ನಾಶಪಡಿಸುತ್ತಾನೆ?
a) ವಜ್ರಾಯುಧ b) ಬಂದೂಕು c) ಸಲಾಕೆ d) ಮೇಲಿನ ಎಲ್ಲವೂ

26. ಗೂಬೆ ಎಂಬ ಪಕ್ಷಿ ಹಗಲಿನಲ್ಲಿ ತನಗೆ ಕಣ್ಣು ಕಾಣದೇ ಇರುವುದರಿಂದ ಯಾವುದನ್ನು ಬೈಯುವುದು?
a) ಚಂದ್ರ b) ದೇವರು c) ಸೂರ್ಯ d) ಕನ್ನಡಿ

27. ಜೇಡರ ದಾಸಿಮಯ್ಯನ ಅಂಕಿತನಾಮ?
a) ಕೂಡಲ ಸಂಗಮದೇವ b) ರಾಮನಾಥ c) ಗುಹೇಶ್ವರ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ



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28. ಪ್ರಪಂಚದ ಜ್ಞಾನವನ್ನು ಸಂಪಾದನೆ ಮಾಡಿದ ಕುಂಬಾರಕಿ ಆ ಜ್ಞಾನವನ್ನು ಯಾರಿಗೆ ಸಮರ್ಪಿಸಿದಳು?
a) ಶಿಶುನಾಳಧೀಶನಿಗೆ b) ತನಗೆ c) ಪರರಿಗೆ d) ಮೇಲಿನ ಎಲ್ಲರಿಗೂ

29. ತದ್ಭವ ಬರೆಯಿರಿ: ಬ್ರಹ್ಮಾಂಡ
a) ಬ್ರಹ್ಮ b) ಬೊಮ್ಮ c) ಬೊಮ್ಮಾಂಡ d) ಬೊಂಬೆ

30. ಸಮಾನಾರ್ಥಕ ಪದ: ತನು
a) ಮಾನವ b) ಶರೀರ c) ಅಂಗಾಂಗ d) ಅಂತರಂಗ

31. ಸೈನಿಕರ ವೀರಜೀವನವನ್ನು ತಿಳಿಸುವ ಶಾಸನ ತಿಳಿಸಿ?
a)ಬೇಲೂರಿನ ಶಾಸನ b) ಶ್ರವಣಬೆಳಗೊಳ ಶಾಸನ
c) ವೀರಗಲ್ಲು ಶಾಸನ d) ಬಾದಾಮಿ ಶಾಸನ

32. ಅಕ್ಕನ ವಚನದ ಪ್ರಕಾರ ಹಸಿವಾದರೆ ಊರೊಳಗೆ ಬಿಕ್ಷಾನ್ನಗಳುಂಟು, ತೃಷೆಯಾದರೆ ____ ಹಳ್ಳಗಳುಂಟು
a) ಹಳ್ಳಕೊಳ್ಳ b) ಕೆರೆಬಾವಿ c) ಬೆಟ್ಟಗುಡ್ಡ d) ಕಟ್ಟೆ

33. ಕರ್ನಾಟಕ ಗತವೈಭವ ಗ್ರಂಥದ ಕರ್ತೃ ಯಾರು?
a) ದೇವರಾಜ್‌ಅರಸ್ b) ಆಲೂರು ವೆಂಕಟರಾಯರು c) ಬಿ.ಎಂ.ಶ್ರೀ d) ಕುವೆಂಪು

34. ವಿನೋಬಾ ಭಾವೆಯವರು ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಏನೆಂದು ಕರೆದರು?
a) ಲಿಪಿಗಳ ರಾಜ b) ಲಿಪಿಗಳ ರಾಣಿ
c) ಲಿಪಿಗಳ ಅಲಂಕಾರ d) ಅಲಂಕಾರ

35. 1955 ರಲ್ಲಿ ರಾಯಚೂರಿನಲ್ಲಿ ನಡೆದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಸಮ್ಮೇಳನದ ಅಧ್ಯಕ್ಷರುಯಾರು?
a) ಶ್ರೀರಂಗರು b) ದ.ರಾ.ಬೇಂದ್ರೆ c) ಚಂದ್ರಶೇಖರಕಂಬಾರ d) ಡಿ.ವಿ.ಜಿ

36. 1974 ರಲ್ಲಿ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಯಾವುದು ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾಯಿತು?
a) ಮರಾಠಿ b) ತೆಲುಗು c) ಇಂಗ್ಲೀಷ್ d) ಕನ್ನಡ

37. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಹುಟ್ಟಿದ ಊರು?
a) ಮಂಡ್ಯ b) ಹಂಪಸಂದ್ರ c) ಮೈಸೂರು d) ಹಂಪಿ

38. ಕನ್ನಡ ಭಾಷೆಗೆ _____ ವರ್ಷಗಳ ಇತಿಹಾಸ ಇದೆ.
a) ಎರಡು ಸಾವಿರ b) ಒಂದು ಸಾವಿರ ಐದುನೂರು c) ಐದು ಸಾವಿರ d) ನಾಲ್ಕು ಸಾವಿರ

39. ಗುಂಪಿಗೆ ಸೇರದ ಪದ ತಿಳಿಸಿ:
a) ಕಂಪ್ಯೂಟರ್ b) ಜೆರಾಕ್ಸ್ c) ಗ್ರಂಥಾಲಯ d) ಮೊಬೈಲ್

40. 1972 ನವೆಂಬರ್ 1ರಂದು ಯಾರ ಆಳ್ವಿಕೆಯಲ್ಲಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಎಂದು ನಾಮಕರಣವಾಯಿತು?
a) ಅಂಬೇಡ್ಕರ್
b) ದೇವರಾಜ್‌ಅರಸ್
c) ಪಂಜೇಮಂಗೇಶರಾಯರು
d) ಸರ್. ಥಾಮಸ್ ಮನ್ರೋ

41. ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿದಾಗ ಮಾನವ ಏನಾಗ ಬೇಕೆಂದು ಡಿ.ವಿ.ಜಿ ತಿಳಿಸಿದ್ದಾರೆ?
a) ನಯವಾಗಬೇಕು b) ಸ್ವಂತ ಇಚ್ಛೆಯಂತೆ c) ಕಲ್ಲಾಗಬೇಕು d) ಮಲ್ಲಿಗೆಯಾಗಬೇಕು



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42 ಹೊಸಚಿಗುರು ಹಳೆಬೇರು ಕೂಡಿರಲು_____.

a) ಮರಸೊಬಗು b) ಹೊಸತತ್ವ c) ಹೊಸಜೀವನ d) ಹೊಸಯುಕ್ತಿ

43. ನಾಡಗೀತೆಯನ್ನು ರಚಿಸಿದ ಕವಿ ಯಾರು?

a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ರಾಜರತ್ನ d) ಪಿ.ಲಂಕೇಶ್

44. ಶಕ್ತಿ ಇಲ್ಲದವರಿಗೆ, ದೀನ ದುರ್ಬಲರ ಪಾಲಿಗೆ ಡಿ. ವಿ. ಜಿ.ಯವರು ಹೇಗಿರಬೇಕೆಂದು ಹೇಳಿದ್ದಾರೆ?

a) ಬೇವು-ಬೆಲ್ಲದಂತೆ

b) ಹಾಲು-ತುಪ್ಪದಂತೆ

c) ಬೆಲ್ಲ-ಸಕ್ಕರೆಯಂತೆ

d) ಮೇಲಿನ ಎಲ್ಲವೂ

45. ದ.ರಾ.ಬೇಂದ್ರೆಯವರ ಕಾವ್ಯನಾಮ?

a) ತೀ.ನಂ.ಶ್ರೀ b) ಕುವೆಂಪು c) ಡಿ.ವಿ.ಜಿ d) ಅಂಬಿಕಾತನಯದತ್ತ

46. ಡಿ.ವಿ.ಜಿ.ಯವರ ಕಾಲಘಟ್ಟ :

a) ನವೋದಯ b) ನವ್ಯ c) ಪ್ರಗತಿಶೀಲ d) ಬಂಡಾಯ

47. ಕುರುಡುಕಾಂಚಾಣ ಎಂಬ ಕಾವ್ಯವನ್ನು ಬೇಂಧ್ರೆಯವರ ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೂಂಡಿದ್ದಾರೆ?

a)ನಾಕುತಂತಿ b) ನಾದಲೀಲೆ c) ಸಖಿಗೀತ d) ಪಕ್ಷಿಕಾಶಿ

48. ಕುರುಡುಕಾಂಚಾಣ ಹಣೆಯ ಬಂಡಾರವು ಯಾವುದರದಾಗಿತ್ತು?

a) ಅಧಿಕಾರವಂತರ

b) ಕೂಲಿಕಾರ್ಮಿಕರ

c) ಉದ್ಯಮಿಗಳ

d) ಮೇಲ್ವರ್ಗದವರ

49. ಗೆದ್ದಲು ಹುಳುಗಳು ತಾನು ಕಟ್ಟಿದ ಗೂಡು ಯಾರಿಗೆ ಆಶ್ರಯವಾಯಿತು?

a) ಸಣ್ಣಜೀವಿ

b) ಕ್ಷುದ್ರಜೀವಿ

c) ವಿಷಸರ್ಪ

d) ಮೇಲಿನ ಎಲ್ಲವೂ

50. 12ನೇ ಶತಮಾನದಲ್ಲಿ ಕಂಡು ಬರುವ ಪ್ರಸಿದ್ಧ ವಚನಕಾರ?

a) ಬಸವಣ್ಣ

b) ಕವಿರಾಜ ಮಾರ್ಗ

c) ಪುರಂದರದಾಸ

d) ಕುವೆಂಪು

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Question Paper Version : C

**First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

Time: 1 hrs. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಪಡೆದಿರುವ ದೇಶದ ಅತ್ಯುತ್ತಮ ಪ್ರಶಸ್ತಿ ಯಾವುದು?
   a) ಕರ್ನಾಟಕರತ್ನ ಪ್ರಶಸ್ತಿ
   b) ಭಾರತರತ್ನ ಪ್ರಶಸ್ತಿ
   c) ಪದ್ಮಶ್ರೀ
   d)ಪದ್ಮವಿಭೂಷಣ ಪ್ರಶಸ್ತಿ

2. ಕರಕುಶಲ ಕಲೆ =
   a) ರಾಗಿ ಬಿತ್ತನೆ
   b) ಗಡಿಗೆ ತಯಾರಿಕೆ
   c) ರೇಷ್ಮೆ ಸಾಕಾಣಿಕೆ
   d) ಮನೆ ಕೆಲಸ

3. ಮೈಸೂರು-ಮಂಡ್ಯ ಸೀಮೆಯ ಕೆಳವರ್ಗದ ಸಮುದಾಯದಲ್ಲಿ ಜನಪ್ರಿಯವಾಗಿರುವ 'ಸಂತ'.
   a)ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
   b) ಮಂಟೆಸ್ವಾಮಿ
   c) ಸರ್.ಎಂ.ವಿಶ್ವೇಶ್ವರಯ್ಯ
   d) ಶಿಶುನಾಳ ಷರೀಫ್



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4. ಕನ್ನಂಬಾಡಿ ಅಣೆಕಟ್ಟುಯಾವ ನದಿಗೆ ಅಡ್ಡಲಾಗಿಕಟ್ಟಲಾಗಿದೆ?

a) ಕೃಷ್ಣ

b) ಕಾವೇರಿ

c) ನೇತ್ರಾವತಿ

d) ತುಂಗಭದ್ರಾ

5. ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ ಎಂಬ ಲೇಖನ ಯಾವ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?

a) ಸಮಗ್ರ ಲಲಿತ ಪ್ರಬಂಧಗಳು

b) ಮಲೆನಾಡು ಚಿತ್ರಗಳು

c) ಹೇಮಾವತಿ ತೀರ

d) ಬಕುಲದಹೂಗಳು

6. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಜನನ :

a) 15 ಸೆಪ್ಟೆಂಬರ್ 1860

b) 15 ಸೆಪ್ಟೆಂಬರ್ 1862

c)15 ಸೆಪ್ಟೆಂಬರ್ 1890

d) 15 ಸೆಪ್ಟೆಂಬರ್ 1870

7. ಕರಕುಶಲ ಕಲೆಗಳು ಮತ್ತು ಪರಂಪರೆಯ ವಿಜ್ಞಾನ ಲೇಖನದ ಲೇಖಕರು ಯಾರು?

a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ

b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ

c) ಮೂರ್ತಿರಾವ್

d) ವಾಸುದೇಂದ್ರ

8. ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಗಿಡಗಳು ಭಾರತದಲ್ಲಿ ಎಷ್ಟಿವೆ?

a) ಸು. 600

b) ಸು. 300

c) ಸು. 200

d) ಸು. 400

9. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ___ ಕಲೆಗೆ ಮೂಲನೆಲೆ.

a) ಸಮಪಾಲುಚಿತ್ರ ಬಣ್ಣ

b) ಮುದ್ರಣ

c) ನೇಯ್ಗೆ

d) ಚಿತ್ರಬಣ್ಣ



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10. ಕರ್ನಾಟಕದ ಅಭಿವೃದ್ಧಿಗೆ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಮಾಡಿದ ಮುಖ್ಯ ಕೆಲಸ ಯಾವುದು?

a) ಭಾರತೀಯ ವಿಶ್ವ ಬ್ಯಾಂಕ್

b) ಭದ್ರಾವತಿಯಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆ

c) ಬೆಂಗಳೂರಿನ ಮಹಿಳಾ ಕಾಲೇಜು

d) ಮೈಸೂರಿನ ಅರಮನೆ ಮೈದಾನ ಅಭಿವೃದ್ಧಿ

11. ಸೈನಿಕರ ವೀರಜೀವನವನ್ನು ತಿಳಿಸುವ ಶಾಸನ ತಿಳಿಸಿ?

a) ಬೇಲೂರಿನ ಶಾಸನ
b) ಶ್ರವಣಬೆಳಗೊಳ ಶಾಸನ
c) ವೀರಗಲ್ಲು ಶಾಸನ
d) ಬಾದಾಮಿ ಶಾಸನ

12. ಅಕ್ಕನ ವಚನದ ಪ್ರಕಾರ ಹಸಿವಾದರೆ ಊರೊಳಗೆ ಬಿಕ್ಷಾನ್ನಗಳುಂಟು, ತೃಷೆಯಾದರೆ _____ ಹಳ್ಳಗಳುಂಟು

a) ಹಳ್ಳಕೊಳ್ಳ  b) ಕೆರೆಬಾವಿ  c) ಬೆಟ್ಟಗುಡ್ಡ  d) ಕಟ್ಟೆ

13. ಕರ್ನಾಟಕ ಗತವೈಭವ ಗ್ರಂಥದ ಕರ್ತೃ ಯಾರು?

a) ದೇವರಾಜ್‌ಅರಸ್  b) ಆಲೂರು ವೆಂಕಟರಾಯರು  c) ಬಿ.ಎಂ.ಶ್ರೀ  d) ಕುವೆಂಪು

14. ವಿನೋಬಾ ಭಾವೆಯವರು ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಏನೆಂದು ಕರೆದರು?

a) ಲಿಪಿಗಳ ರಾಜ
b) ಲಿಪಿಗಳ ರಾಣಿ
c) ಲಿಪಿಗಳ ಅಲಂಕಾರ
d) ಅಲಂಕಾರ

15. 1955 ರಲ್ಲಿ ರಾಯಚೂರಿನಲ್ಲಿ ನಡೆದಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಸಮ್ಮೇಳನದ ಅಧ್ಯಕ್ಷರುಯಾರು?

a) ಶ್ರೀರಂಗರು  b) ದ.ರಾ.ಬೇಂದ್ರೆ  c) ಚಂದ್ರಶೇಖರಕಂಬಾರ  d) ಡಿ.ವಿ.ಜಿ

16. 1974 ರಲ್ಲಿ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಯಾವುದು ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾಯಿತು?

a) ಮರಾಠಿ  b) ತೆಲುಗು  c) ಇಂಗ್ಲೀಷ್  d) ಕನ್ನಡ

17. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಹುಟ್ಟಿದ ಊರು?

a) ಮಂಡ್ಯ  b) ಹಂಪಸಂದ್ರ  c) ಮೈಸೂರು  d) ಹಂಪಿ

18. ಕನ್ನಡ ಭಾಷೆಗೆ _____ ವರ್ಷಗಳ ಇತಿಹಾಸ ಇದೆ.

a) ಎರಡು ಸಾವಿರ  b) ಒಂದು ಸಾವಿರ ಐದುನೂರು  c) ಐದು ಸಾವಿರ  d) ನಾಲ್ಕು ಸಾವಿರ

19. ಗುಂಪಿಗೆ ಸೇರದ ಪದ ತಿಳಿಸಿ:

a) ಕಂಪ್ಯೂಟರ್  b) ಜೆರಾಕ್ಸ್  c) ಗ್ರಂಥಾಲಯ  d) ಮೊಬೈಲ್

20. 1972 ನವೆಂಬರ್ 1ರಂದು ಯಾರ ಆಳ್ವಿಕೆಯಲ್ಲಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಎಂದು ನಾಮಕರಣವಾಯಿತು?

a) ಅಂಬೇಡ್ಕರ್
b) ದೇವರಾಜ್‌ಅರಸ್
c) ಪಂಜೇಮಂಗೇಶರಾಯರು
d) ಸರ್. ಥಾಮಸ್ ಮನ್ರೋ



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21. ಖಡಕ್ ಮೇಷ್ಟ್ರು ಎಂದು ಯಾರನ್ನು ಕರೆಯಲಾಯಿತು?
a) ಪ್ರಹ್ಲಾದ
b) ಗೋಪಣ್ಣ
c) ಇಸ್ಮಾಯಿಲ್
d) ಕರೀಂ ಸಾಬ್

22. ಗೋಪಣ್ಣ ಮಾಸ್ತಾರರ ಹೆಂಡತಿಯ ಹೆಸರೇನು?
a) ರುಕ್ಮಿಣಿಯಮ್ಮ
b) ರೇಖಾ
c) ರಾಧ
d) ರಮ್ಯ

23. ಮೆಗಾನೆ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಹೋಳಿ ಹುಣ್ಣಿಮೆಯೆಂದು ಯಾವ ನರ್ತನ ಮಾಡುತ್ತಾರೆ?
a) ಬಯಲಾಟ
b) ದೊಡ್ಡಾಟ
c) ಹೋಳಿ ಸಿಗ್ಮಾ ನರ್ತನ
d) ಯಕ್ಷಗಾನ

24. ಗೋಪಣ್ಣ ಹೆಂಡತಿಯು ಸಾವನ್ನಪ್ಪಿ ಎಷ್ಟು ವರ್ಷವಾಯಿತು?
a) 25 b) 20 c) 30 d) 21

25. ಯುಗಾದಿ ಕತೆಯ ಲೇಖಕರುಯಾರು?
a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ವಾಸುದೇಂದ್ರ
d) ಮೂರ್ತಿರಾವ್

26. ಮೆಗಾನೆ ಎಂಬುದುಒಂದು _____?
a) ಸ್ಥಳ b) ಮನೆ c) ಜನಾಂಗ d) ಪರ್ವತ

27. ಕುಣಬಿಯವರ ಮೂಲ ಎಲ್ಲಿನವರು?
a) ಗೋವಾ b) ಮಂಡ್ಯ c) ಧಾರವಾಡ d) ಹಾಸನ

28. ಮೆಗಾನೆ ಎಂಬ ಹಳ್ಳಿಯಲ್ಲಿ ಇರುವ ಜನಾಂಗ?
a) ಕೊಡವ b) ಕುಣಬಿ c) ಗೊಂಡ d) ಕಾಡುಜನ

29. ಗೋಪಣ್ಣ ಮಾಸ್ತರರು ಓದುತ್ತಿರುವ ಕಾವ್ಯ ಯಾವುದು?
a) ಮಹಾಭಾರತ
b) ರಾಮಾಯಣ
c) ಕುಮಾರವ್ಯಾಸ ಭಾರತ
d) ಭಗವದ್ಗೀತೆ



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30. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ ಪ್ರಬಂಧವನ್ನು ಯಾವ ಪ್ರವಾಸ ಕವನದಿಂದ ಆರಿಸಿಕೊಳ್ಳಲಾಗಿದೆ?
a) ಗಿರಿಜನ
b) ಮೆಗಾನೆ
c) ಗಿರಿಜನ ನಾಡಿಗೆ ಪಯಣ
d) ಆನೆಕಾಡು

31. ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿದಾಗ ಮಾನವ ಏನಾಗ ಬೇಕೆಂದು ಡಿ.ವಿ.ಜಿ ತಿಳಿಸಿದ್ದಾರೆ?
a) ನಯವಾಗಬೇಕು b) ಸ್ವಂತ ಇಚ್ಛೆಯಂತೆ c) ಕಲ್ಲಾಗಬೇಕು d) ಮಲ್ಲಿಗೆಯಾಗಬೇಕು

32. ಹೊಸಚಿಗುರು ಹಳೆಬೇರು ಕೂಡಿರಲು_____.
a) ಮರಸೊಬಗು b) ಹೊಸತತ್ವ c) ಹೊಸಜೀವನ d) ಹೊಸಯುಕ್ತಿ

33. ನಾಡಗೀತೆಯನ್ನು ರಚಿಸಿದ ಕವಿ ಯಾರು?
a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ರಾಜರತ್ನ d) ಪಿ.ಲಂಕೇಶ್

34. ಶಕ್ತಿ ಇಲ್ಲದವರಿಗೆ, ದೀನ ದುರ್ಬಲರ ಪಾಲಿಗೆ ಡಿ. ವಿ. ಜಿ.ಯವರು ಹೇಗಿರಬೇಕೆಂದು ಹೇಳಿದ್ದಾರೆ?
a) ಬೇವು-ಬೆಲ್ಲದಂತೆ
b) ಹಾಲು-ತುಪ್ಪದಂತೆ
c) ಬೆಲ್ಲ-ಸಕ್ಕರೆಯಂತೆ
d) ಮೇಲಿನ ಎಲ್ಲವೂ

35. ದ.ರಾ.ಬೇಂದ್ರೆಯವರ ಕಾವ್ಯನಾಮ?
a) ತೀ.ನಂ.ಶ್ರೀ b) ಕುವೆಂಪು c) ಡಿ.ವಿ.ಜಿ d) ಅಂಬಿಕಾತನಯದತ್ತ

36. ಡಿ.ವಿ.ಜಿ.ಯವರ ಕಾಲಘಟ್ಟ :
a) ನವೋದಯ b) ನವ್ಯ c) ಪ್ರಗತಿಶೀಲ d) ಬಂಡಾಯ

37. ಕುರುಡುಕಾಂಚಾಣ ಎಂಬ ಕಾವ್ಯವನ್ನು ಬೇಂಧ್ರೆಯವರ ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೂಂಡಿದ್ದಾರೆ?
a)ನಾಕುತಂತಿ b) ನಾದಲೀಲೆ c) ಸಖಿಗೀತ d) ಪಕ್ಷಿಕಾಶಿ

38. ಕುರುಡುಕಾಂಚಾಣ ಹಣೆಯ ಬಂಡಾರವು ಯಾವುದರದಾಗಿತ್ತು?
a) ಅಧಿಕಾರವಂತರ
b) ಕೂಲಿಕಾರ್ಮಿಕರ
c) ಉದ್ಯಮಿಗಳ
d) ಮೇಲ್ವರ್ಗದವರ

39. ಗೆದ್ದಲು ಹುಳುಗಳು ತಾನು ಕಟ್ಟಿದ ಗೂಡು ಯಾರಿಗೆ ಆಶ್ರಯವಾಯಿತು?
a) ಸಣ್ಣಜೀವಿ
b) ಕ್ಷುದ್ರಜೀವಿ
c) ವಿಷಸರ್ಪ
d) ಮೇಲಿನ ಎಲ್ಲವೂ



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40. 12ನೇ ಶತಮಾನದಲ್ಲಿ ಕಂಡು ಬರುವ ಪ್ರಸಿದ್ಧ ವಚನಕಾರ?

a) ಬಸವಣ್ಣ
b) ಕವಿರಾಜ ಮಾರ್ಗ
c) ಪುರಂದರದಾಸ
d) ಕುವೆಂಪು

41. ಕಳ್ಳಗಂಜಿ ಕಾಡ ಹೊಕ್ಕೆಡೆ, ಹುಲಿ ತಿಂಬುದಮಾಬುದೇ? ಈ ಸಾಲನ್ನು ಬರೆದ ವಚನಕಾರರು ಯಾರು?
a) ಬಸವಣ್ಣ b) ಅಕ್ಕಮಹಾದೇವಿ c) ಅಲ್ಲಮಪ್ರಭು d) ಜೇಡರದಾಸಿಮಯ್ಯ

42 ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯನವರು ತ್ರಿವಿಧಗಳಿಗಿಂತ ಯಾವುದು ಶ್ರೇಷ್ಠ ಎಂದು ಬಿಂಬಿಸಿದ್ದಾರೆ?
a) ಧ್ಯಾನ b) ಗುರು c) ಕಾಯಕ d) ಭಕ್ತಿ

43. ಕರ್ನಾಟಕ ಸಂಗೀತ ಪಿತಾಮಹ ಎಂಬ ಹೆಸರಿಗೆ ಪಾತ್ರರಾದ ದಾಸಯಾರು?
a) ಪುರಂದರದಾಸರು
b) ಕನಕದಾಸರು
c) ವಾದಿರಾಜ
d) ಗೋಪಾಲದಾಸ

44. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ತತ್ವಪದಗಳ ರೂವಾರಿ ಯಾರು?
a) ಅಲ್ಲಮಪ್ರಭು
b) ಪುರಂದರದಾಸರು
c) ಕನಕದಾಸರು
d) ಶಿಶುನಾಳ ಷರೀಫ

45. ಬಸವಣ್ಣನವರ ವಚನದಲ್ಲಿ ಇಂದ್ರನು ಪರ್ವತವನ್ನು ಯಾವ ಆಯುಧದಿಂದ ನಾಶಪಡಿಸುತ್ತಾನೆ?
a) ವಜ್ರಾಯುಧ b) ಬಂದೂಕು c) ಸಲಾಕೆ d) ಮೇಲಿನ ಎಲ್ಲವೂ

46. ಗೂಬೆ ಎಂಬ ಪಕ್ಷಿ ಹಗಲಿನಲ್ಲಿ ತನಗೆ ಕಣ್ಣು ಕಾಣದೇ ಇರುವುದರಿಂದ ಯಾವುದನ್ನು ಬೈಯುವುದು?
a) ಚಂದ್ರ b) ದೇವರು c) ಸೂರ್ಯ d) ಕನ್ನಡಿ

47. ಜೇಡರ ದಾಸಿಮಯ್ಯನ ಅಂಕಿತನಾಮ?
a) ಕೂಡಲ ಸಂಗಮದೇವ b) ರಾಮನಾಥ c) ಗುಹೇಶ್ವರ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ

48. ಪ್ರಪಂಚದ ಜ್ಞಾನವನ್ನು ಸಂಪಾದನೆ ಮಾಡಿದ ಕುಂಬಾರಕಿ ಆ ಜ್ಞಾನವನ್ನು ಯಾರಿಗೆ ಸಮರ್ಪಿಸಿದಳು?
a) ಶಿಶುನಾಳಧೀಶನಿಗೆ b) ತನಗೆ c) ಪರರಿಗೆ d) ಮೇಲಿನ ಎಲ್ಲರಿಗೂ

49. ತದ್ಭವ ಬರೆಯಿರಿ: ಬ್ರಹ್ಮಾಂಡ
a) ಬ್ರಹ್ಮ b) ಬೊಮ್ಮ c) ಬೊಮ್ಮಾಂಡ d) ಬೊಂಬೆ

50. ಸಮಾನಾರ್ಥಕ ಪದ: ತನು
a) ಮಾನವ b) ಶರೀರ c) ಅಂಗಾಂಗ d) ಅಂತರಂಗ

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Question Paper Version : D

**First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

Time: 1 hrs. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿದಾಗ ಮಾನವ ಏನಾಗ ಬೇಕೆಂದು ಡಿ.ವಿ.ಜಿ ತಿಳಿಸಿದ್ದಾರೆ?
   a) ನಯವಾಗಬೇಕು b) ಸ್ವಂತ ಇಚ್ಛೆಯಂತೆ c) ಕಲ್ಲಾಗಬೇಕು d) ಮಲ್ಲಿಗೆಯಾಗಬೇಕು

2. ಹೊಸಚಿಗುರು ಹಳೆಬೇರು ಕೂಡಿರಲು_____.
   a) ಮರಸೊಬಗು b) ಹೊಸತತ್ವ c) ಹೊಸಜೀವನ d) ಹೊಸಯುಕ್ತಿ

3. ನಾಡಗೀತೆಯನ್ನು ರಚಿಸಿದ ಕವಿ ಯಾರು?
   a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ರಾಜರತ್ನ d) ಪಿ.ಲಂಕೇಶ್

4. ಶಕ್ತಿ ಇಲ್ಲದವರಿಗೆ, ದೀನ ದುರ್ಬಲರ ಪಾಲಿಗೆ ಡಿ. ವಿ. ಜಿ.ಯವರು ಹೇಗಿರಬೇಕೆಂದು ಹೇಳಿದ್ದಾರೆ?
   a) ಬೇವು-ಬೆಲ್ಲದಂತೆ
   b) ಹಾಲು-ತುಪ್ಪದಂತೆ
   c) ಬೆಲ್ಲ-ಸಕ್ಕರೆಯಂತೆ
   d) ಮೇಲಿನ ಎಲ್ಲವೂ

5. ದ.ರಾ.ಬೇಂದ್ರೆಯವರ ಕಾವ್ಯನಾಮ?
   a) ತೀ.ನಂ.ಶ್ರೀ b) ಕುವೆಂಪು c) ಡಿ.ವಿ.ಜಿ d) ಅಂಬಿಕಾತನಯದತ್ತ

6. ಡಿ.ವಿ.ಜಿ.ಯವರ ಕಾಲಘಟ್ಟ :
   a) ನವೋದಯ b) ನವ್ಯ c) ಪ್ರಗತಿಶೀಲ d) ಬಂಡಾಯ



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7. ಕುರುಡುಕಾಂಚಾಣ ಎಂಬ ಕಾವ್ಯವನ್ನು ಬೇಂಧ್ರೆಯವರ ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೂಂಡಿದ್ದಾರೆ?

a)ನಾಕುತಂತಿ b) ನಾದಲೀಲೆ c) ಸಖಿಗೀತ d) ಪಕ್ಷಿಕಾಶಿ

8. ಕುರುಡುಕಾಂಚಾಣ ಹಣೆಯ ಬಂಡಾರವು ಯಾವುದರದಾಗಿತ್ತು?

a) ಅಧಿಕಾರವಂತರ
b) ಕೂಲಿಕಾರ್ಮಿಕರ
c) ಉದ್ಯಮಿಗಳ
d) ಮೇಲ್ವರ್ಗದವರ

9. ಗೆದ್ದಲು ಹುಳುಗಳು ತಾನು ಕಟ್ಟಿದ ಗೂಡು ಯಾರಿಗೆ ಆಶ್ರಯವಾಯಿತು?

a) ಸಣ್ಣಜೀವಿ
b) ಕ್ಷುದ್ರಜೀವಿ
c) ವಿಷಸರ್ಪ
d) ಮೇಲಿನ ಎಲ್ಲವೂ

10. 12ನೇ ಶತಮಾನದಲ್ಲಿ ಕಂಡು ಬರುವ ಪ್ರಸಿದ್ಧ ವಚನಕಾರ?

a) ಬಸವಣ್ಣ
b) ಕವಿರಾಜ ಮಾರ್ಗ
c) ಪುರಂದರದಾಸ
d) ಕುವೆಂಪು

11. ಖಡಕ್ ಮೇಷ್ಟ್ರು ಎಂದು ಯಾರನ್ನು ಕರೆಯಲಾಯಿತು?

a) ಪ್ರಹ್ಲಾದ
b) ಗೋಪಣ್ಣ
c) ಇಸ್ಮಾಯಿಲ್
d) ಕರೀಂ ಸಾಬ್

12. ಗೋಪಣ್ಣ ಮಾಸ್ತರರ ಹೆಂಡತಿಯ ಹೆಸರೇನು?

a) ರುಕ್ಮಿಣಿಯಮ್ಮ
b) ರೇಖಾ
c) ರಾಧ
d) ರಮ್ಯ

13. ಮೆಗಾನೆ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಹೋಳಿ ಹುಣ್ಣಿಮೆಯೆಂದು ಯಾವ ನರ್ತನ ಮಾಡುತ್ತಾರೆ?

a) ಬಯಲಾಟ
b) ದೊಡ್ಡಾಟ
c) ಹೋಳಿ ಸಿಗ್ಮಾ ನರ್ತನ
d) ಯಕ್ಷಗಾನ



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14. ಗೋಪಣ್ಣ ಹೆಂಡತಿಯು ಸಾವನ್ನಪ್ಪಿ ಎಷ್ಟು ವರ್ಷವಾಯಿತು?
a) 25 b) 20 c) 30 d) 21

15. ಯುಗಾದಿ ಕತೆಯ ಲೇಖಕರು ಯಾರು?
a) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ವಾಸುದೇಂದ್ರ
d) ಮೂರ್ತಿರಾವ್

16. ಮೆಗಾನೆ ಎಂಬುದು ಒಂದು _____?
a) ಸ್ಥಳ b) ಮನೆ c) ಜನಾಂಗ d) ಪರ್ವತ

17. ಕುಣಬಿಯವರ ಮೂಲ ಎಲ್ಲಿನವರು?
a) ಗೋವಾ b) ಮಂಡ್ಯ c) ಧಾರವಾಡ d) ಹಾಸನ

18. ಮೆಗಾನೆ ಎಂಬ ಹಳ್ಳಿಯಲ್ಲಿ ಇರುವ ಜನಾಂಗ?
a) ಕೊಡವ b) ಕುಣಬಿ c) ಗೊಂಡ d) ಕಾಡುಜನ

19. ಗೋಪಣ್ಣ ಮಾಸ್ತಾರರು ಓದುತ್ತಿರುವ ಕಾವ್ಯ ಯಾವುದು?
a) ಮಹಾಭಾರತ
b) ರಾಮಾಯಣ
c) ಕುಮಾರವ್ಯಾಸ ಭಾರತ
d) ಭಗವದ್ಗೀತೆ

20. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ ಪ್ರಬಂಧವನ್ನು ಯಾವ ಪ್ರವಾಸ ಕವನದಿಂದ ಆರಿಸಿಕೊಳ್ಳಲಾಗಿದೆ?
a) ಗಿರಿಜನ
b) ಮೆಗಾನೆ
c) ಗಿರಿಜನ ನಾಡಿಗೆ ಪಯಣ
d) ಆನೆಕಾಡು

21. ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಪಡೆದಿರುವ ದೇಶದ ಅತ್ಯುತ್ತಮ ಪ್ರಶಸ್ತಿ ಯಾವುದು?
a) ಕರ್ನಾಟಕರತ್ನ ಪ್ರಶಸ್ತಿ
b) ಭಾರತರತ್ನ ಪ್ರಶಸ್ತಿ
c) ಪದ್ಮಶ್ರೀ
d)ಪದ್ಮವಿಭೂಷಣ ಪ್ರಶಸ್ತಿ

22. ಕರಕುಶಲ ಕಲೆ =
a) ರಾಗಿ ಬಿತ್ತನೆ
b) ಗಡಿಗೆ ತಯಾರಿಕೆ
c) ರೇಷ್ಮೆ ಸಾಕಾಣಿಕೆ
d) ಮನೆ ಕೆಲಸ

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23. ಮೈಸೂರು-ಮಂಡ್ಯ ಸೀಮೆಯ ಕೆಳವರ್ಗದ ಸಮುದಾಯದಲ್ಲಿ ಜನಪ್ರಿಯವಾಗಿರುವ 'ಸಂತ'.
a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
b) ಮಂಟೆಸ್ವಾಮಿ
c) ಸರ್.ಎಂ.ವಿಶ್ವೇಶ್ವರಯ್ಯ
d) ಶಿಶುನಾಳ ಷರೀಫ್

24. ಕನ್ನಂಬಾಡಿ ಅಣೆಕಟ್ಟು ಯಾವ ನದಿಗೆ ಅಡ್ಡಲಾಗಿ ಕಟ್ಟಲಾಗಿದೆ?
a) ಕೃಷ್ಣ
b) ಕಾವೇರಿ
c) ನೇತ್ರಾವತಿ
d) ತುಂಗಭದ್ರಾ

25. ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ ಎಂಬ ಲೇಖನ ಯಾವ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?
a) ಸಮಗ್ರ ಲಲಿತ ಪ್ರಬಂಧಗಳು
b) ಮಲೆನಾಡು ಚಿತ್ರಗಳು
c) ಹೇಮಾವತಿ ತೀರ
d) ಬಕುಲದಹೂಗಳು

26. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಜನನ :
a) 15 ಸೆಪ್ಟೆಂಬರ್ 1860
b) 15 ಸೆಪ್ಟೆಂಬರ್ 1862
c)15 ಸೆಪ್ಟೆಂಬರ್ 1890
d) 15 ಸೆಪ್ಟೆಂಬರ್ 1870

27. ಕರಕುಶಲ ಕಲೆಗಳು ಮತ್ತು ಪರಂಪರೆಯ ವಿಜ್ಞಾನ ಲೇಖನದ ಲೇಖಕರು ಯಾರು?
a) ಕರೀಗೌಡಬೀಚನಹಳ್ಳಿ
b) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ
c) ಮೂರ್ತಿರಾವ್
d) ವಾಸುದೇಂದ್ರ

28. ಬಣ್ಣಗಳನ್ನು ನೀಡುವಗಿಡಗಳು ಭಾರತದಲ್ಲಿ ಎಷ್ಟಿವೆ?
a) ಸು. 600
b) ಸು. 300
c) ಸು. 200
d) ಸು. 400

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29. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ___ ಕಲೆಗೆ ಮೂಲನೆಲೆ.
a) ಸಮಪಾಲುಚಿತ್ರ ಬಣ್ಣ
b) ಮುದ್ರಣ
c) ನೇಯ್ಗೆ
d) ಚಿತ್ರಬಣ್ಣ

30. ಕರ್ನಾಟಕದ ಅಭಿವೃದ್ಧಿಗೆ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಮಾಡಿದ ಮುಖ್ಯ ಕೆಲಸ ಯಾವುದು?
a) ಭಾರತೀಯ ವಿಶ್ವ ಬ್ಯಾಂಕ್
b) ಭದ್ರಾವತಿಯಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆ
c) ಬೆಂಗಳೂರಿನ ಮಹಿಳಾ ಕಾಲೇಜು
d) ಮೈಸೂರಿನ ಅರಮನೆ ಮೈದಾನ ಅಭಿವೃದ್ಧಿ

31. ಕಳ್ಳಗಂಜಿ ಕಾಡ ಹೊಕ್ಕೆಡೆ, ಹುಲಿ ತಿಂಬುದಮಾಬುದೇ? ಈ ಸಾಲನ್ನು ಬರೆದ ವಚನಕಾರರು ಯಾರು?
a) ಬಸವಣ್ಣ b) ಅಕ್ಕಮಹಾದೇವಿ c) ಅಲ್ಲಮಪ್ರಭು d) ಜೇಡರದಾಸಿಮಯ್ಯ

32. ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯನವರು ತ್ರಿವಿಧಗಳಿಗಿಂತ ಯಾವುದು ಶ್ರೇಷ್ಠ ಎಂದು ಬಿಂಬಿಸಿದ್ದಾರೆ?
a) ಧ್ಯಾನ b) ಗುರು c) ಕಾಯಕ d) ಭಕ್ತಿ

33. ಕರ್ನಾಟಕ ಸಂಗೀತ ಪಿತಾಮಹ ಎಂಬ ಹೆಸರಿಗೆ ಪಾತ್ರರಾದ ದಾಸಯಾರು?
a) ಪುರಂದರದಾಸರು
b) ಕನಕದಾಸರು
c) ವಾದಿರಾಜ
d) ಗೋಪಾಲದಾಸ

34. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ತತ್ವಪದಗಳ ರೂವಾರಿ ಯಾರು?
a) ಅಲ್ಲಮಪ್ರಭು
b) ಪುರಂದರದಾಸರು
c) ಕನಕದಾಸರು
d) ಶಿಶುನಾಳ ಷರೀಫ

35. ಬಸವಣ್ಣನವರ ವಚನದಲ್ಲಿ ಇಂದ್ರನು ಪರ್ವತವನ್ನು ಯಾವ ಆಯುಧದಿಂದ ನಾಶಪಡಿಸುತ್ತಾನೆ?
a) ವಜ್ರಾಯುಧ b) ಬಂದೂಕು c) ಸಲಾಕೆ d) ಮೇಲಿನ ಎಲ್ಲವೂ

36. ಗೂಬೆ ಎಂಬ ಪಕ್ಷಿ ಹಗಲಿನಲ್ಲಿ ತನಗೆ ಕಣ್ಣು ಕಾಣದೇ ಇರುವುದರಿಂದ ಯಾವುದನ್ನು ಬೈಯುವುದು?
a) ಚಂದ್ರ b) ದೇವರು c) ಸೂರ್ಯ d) ಕನ್ನಡಿ

37. ಜೇಡರ ದಾಸಿಮಯ್ಯನ ಅಂಕಿತನಾಮ?
a) ಕೂಡಲ ಸಂಗಮದೇವ b) ರಾಮನಾಥ c) ಗುಹೇಶ್ವರ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ



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38. ಪ್ರಪಂಚದ ಜ್ಞಾನವನ್ನು ಸಂಪಾದನೆ ಮಾಡಿದ ಕುಂಬಾರಕಿ ಆ ಜ್ಞಾನವನ್ನು ಯಾರಿಗೆ ಸಮರ್ಪಿಸಿದಳು?
a) ಶಿಶುನಾಳಧೀಶನಿಗೆ b) ತನಗೆ c) ಪರರಿಗೆ d) ಮೇಲಿನ ಎಲ್ಲರಿಗೂ

39. ತದ್ಭವ ಬರೆಯಿರಿ: ಬ್ರಹ್ಮಾಂಡ
a) ಬ್ರಹ್ಮ b) ಬೊಮ್ಮ c) ಬೊಮ್ಮಾಂಡ d) ಬೊಂಬೆ

40. ಸಮಾನಾರ್ಥಕ ಪದ: ತನು
a) ಮಾನವ b) ಶರೀರ c) ಅಂಗಾಂಗ d) ಅಂತರಂಗ

41. ಸೈನಿಕರ ವೀರಜೀವನವನ್ನು ತಿಳಿಸುವ ಶಾಸನ ತಿಳಿಸಿ?
a) ಬೇಲೂರಿನ ಶಾಸನ b) ಶ್ರವಣಬೆಳಗೊಳ ಶಾಸನ
c) ವೀರಗಲ್ಲು ಶಾಸನ d) ಬಾದಾಮಿ ಶಾಸನ

42 ಅಕ್ಕನ ವಚನದ ಪ್ರಕಾರ ಹಸಿವಾದರೆ ಊರೊಳಗೆ ಬಿಕ್ಷಾನ್ನಗಳುಂಟು, ತೃಷೆಯಾದರೆ _____ ಹಳ್ಳಗಳುಂಟು
a) ಹಳ್ಳಕೊಳ್ಳ b) ಕೆರೆಬಾವಿ c) ಬೆಟ್ಟಗುಡ್ಡ d) ಕಟ್ಟೆ

43. ಕರ್ನಾಟಕ ಗತವೈಭವ ಗ್ರಂಥದ ಕರ್ತೃ ಯಾರು?
a) ದೇವರಾಜ್‌ಅರಸ್ b) ಆಲೂರು ವೆಂಕಟರಾಯರು c) ಬಿ.ಎಂ.ಶ್ರೀ d) ಕುವೆಂಪು

44. ವಿನೋಬಾ ಭಾವೆಯವರು ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಏನೆಂದು ಕರೆದರು?
a) ಲಿಪಿಗಳ ರಾಜ b) ಲಿಪಿಗಳ ರಾಣಿ
c) ಲಿಪಿಗಳ ಅಲಂಕಾರ d) ಅಲಂಕಾರ

45. 1955 ರಲ್ಲಿರಾಯಚೂರಿನಲ್ಲಿ ನಡೆದಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಸಮ್ಮೇಳನದ ಅಧ್ಯಕ್ಷರುಯಾರು?
a) ಶ್ರೀರಂಗರು b) ದ.ರಾ.ಬೇಂದ್ರೆ c) ಚಂದ್ರಶೇಖರಕಂಬಾರ d) ಡಿ.ವಿ.ಜಿ

46. 1974 ರಲ್ಲಿ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಯಾವುದು ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾಯಿತು?
a) ಮರಾಠಿ b) ತೆಲುಗು c) ಇಂಗ್ಲೀಷ್ d) ಕನ್ನಡ

47. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಹುಟ್ಟಿದ ಊರು?
a) ಮಂಡ್ಯ b) ಹಂಪಸಂದ್ರ c) ಮೈಸೂರು d) ಹಂಪಿ

48. ಕನ್ನಡ ಭಾಷೆಗೆ _____ ವರ್ಷಗಳ ಇತಿಹಾಸ ಇದೆ.
a) ಎರಡು ಸಾವಿರ b) ಒಂದು ಸಾವಿರ ಐದುನೂರು c) ಐದು ಸಾವಿರ d) ನಾಲ್ಕು ಸಾವಿರ

49. ಗುಂಪಿಗೆ ಸೇರದ ಪದ ತಿಳಿಸಿ:
a) ಕಂಪ್ಯೂಟರ್ b) ಜೆರಾಕ್ಸ್ c) ಗ್ರಂಥಾಲಯ d) ಮೊಬೈಲ್

50. 1972 ನವೆಂಬರ್ 1ರಂದು ಯಾರ ಆಳ್ವಿಕೆಯಲ್ಲಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಎಂದು ನಾಮಕರಣವಾಯಿತು?
a) ಅಂಬೇಡ್ಕರ್
b) ದೇವರಾಜ್‌ಅರಸ್
c) ಪಂಜೇಮಂಗೇಶರಾಯರು
d) ಸರ್. ಥಾಮಸ್ ಮನ್ರೋ

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1BMATC201

# Second Semester B.E./B.Tech. Degree Examination, June/July 2026
# Differential Calculus and Numerical Methods : CV Stream

Time: 3 hrs. Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*
*3. VTU Formula Hand Book is permitted.*

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Find $\int_0^\infty \int_0^\infty e^{-(x^2+y^2)}\, dx\, dy$ by changing to polar coordinates | 6 | L2 | CO1 |
| | **b.** | Find $\int_{-1}^{1} \int_0^{z} \int_{x-z}^{x+z} (x+y+z)dxdydz$ | 7 | L2 | CO1 |
| | **c.** | Show that $\beta(m,n) = \frac{\Gamma(m)\,\Gamma(n)}{\Gamma(m+n)}$ | 7 | L2 | CO1 |
| | | **OR** | | | |
| **Q.2** | **a.** | Change the order of integration and hence find $\int_0^1 \int_0^{\sqrt{1-x^2}} y^2\ dy\ dx$ | 6 | L2 | CO1 |
| | **b.** | Find the area between the parabolas $y^2 = 4ax$ and $x^2 = 4ay$ using double integral. | 7 | L2 | CO1 |
| | **c.** | Show that $\int_0^{\pi/2} \frac{d\theta}{\sqrt{\sin\theta}} \cdot \int_0^{\pi/2} \sqrt{\sin\theta}\ d\theta = \pi$ | 7 | L2 | CO1 |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Form a partial differential equation of the family of sphere $(x-a)^2 + (y-b)^2 + z^2 = r^2$ by eliminating arbitrary constants. | 6 | L2 | CO1 |
| | **b.** | Solve $\frac{\partial^2 z}{\partial x^2} + z = 0$, given that, $z = e^y$ and $\frac{\partial z}{\partial x} = 1$ when $x = 0$ | 7 | L2 | CO1 |
| | **c.** | Derive of one-dimensional heat equation. | 7 | L2 | CO1 |
| | | **OR** | | | |
| **Q.4** | **a.** | Form a partial differential equation by eliminating the arbitrary functions f and g from the relation $z = f(x+ay) + g(x-ay)$ | 6 | L2 | CO1 |
| | **b.** | Solve $\frac{\partial^2 z}{\partial x \partial y} = \sin x \sin y$ for which $\frac{\partial z}{\partial y} = -2\sin y$, when $x = 0$ and $z = 0$ when $y = (2n+1)\frac{\pi}{2}$. | 7 | L2 | CO1 |
| | **c.** | Find the solution of $\frac{\partial u}{\partial x} + \frac{\partial u}{\partial y} = 2(x+y)u$ by the method of separation of variables. | 7 | L2 | CO1 |



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## Module – 3

| Q.No. | | Question | Marks | Level | CO |
|---|---|---|---|---|---|
| Q.5 | a. | Find the directional derivative of $\varphi = x^2yz + 4xz^2$ along $2i - j - 2k$ at $(1, -2, -1)$ | 6 | L2 | CO1 |
| | b. | Show that the vector field $\vec{F} = (x^2 - yz)i + (y^2 - zx)j + (z^2 - xy)k$ is irrotational and find its scalar potential. | 7 | L2 | CO1 |
| | c. | If $\vec{F} = xyi + yzj + zxk$, find $\int_C \vec{F} . d\vec{r}$ where C is a curve represented by $x = t, y = t^2, z = t^3, \ -1 \le t \le 1$ | 7 | L2 | CO1 |

**OR**

| Q.No. | | Question | Marks | Level | CO |
|---|---|---|---|---|---|
| Q.6 | a. | If $\vec{F} = \nabla(x^3 + y^3 + z^3 - 3xyz)$ find $\nabla \cdot \vec{F}$ and $\nabla \times \vec{F}$ | 6 | L2 | CO1 |
| | b. | Find the constants a, b, c so that vector function $\vec{F} = (x + 2y + az)i + (bx - 3y - z)j + (4x + cy + 2z)k$ is irrotational. Hence find scalar potential $\phi$ such that $\vec{F} = \nabla\phi$ | 7 | L2 | CO1 |
| | c. | Using Green's theorem find $\int_c (xy - x^2)\, dx + x^2y dy$ where C is the closed curve formed by $y = 0, x = 1$ and $y = x$. | 7 | L2 | CO1 |

## Module – 4

| Q.No. | | Question | Marks | Level | CO |
|---|---|---|---|---|---|
| Q.7 | a. | Using Newton Raphson method find the real root of the equation $x^3 - 2x - 5 = 0$ correct to three decimal places. | 6 | L2 | CO2 |
| | b. | From the following table find the number of students who scored less than 45 marks using Newton's forward interpolation formula (see table below) | 7 | L2 | CO2 |

| Marks | $30 - 40$ | $40 - 50$ | $50 - 60$ | $60 - 70$ | $70 - 80$ |
|---|---|---|---|---|---|
| No. of Students | 31 | 42 | 51 | 35 | 31 |

| Q.No. | | Question | Marks | Level | CO |
|---|---|---|---|---|---|
| | c. | Find $\int_0^6 \frac{1}{1+x^2} dx$ using Simpson's $\left(\frac{1}{3}\right)^{rd}$ and Simpson's $\left(\frac{3}{8}\right)^{th}$ | 7 | L2 | CO2 |

**OR**

| Q.No. | | Question | Marks | Level | CO |
|---|---|---|---|---|---|
| Q.8 | a. | Using Regula-Falsi method find the real root of the equation $x \log_{10} x = 1.2$ correct to 4 decimal places. | 6 | L2 | CO2 |
| | b. | Find the interpolating polynomial $y = f(x)$ for the data given below using Newton's divided difference formula. (see table below) | 7 | L2 | CO2 |

| x | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| f(x) | 3 | 2 | 7 | 24 | 59 | 118 |

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| | | | | | |
|---|---|---|---|---|---|
| Q.8 | c. | Using Lagrange's interpolation formula, find the interpolating polynomial that approximates the function described by the following data and hence find $f(3)$. | 7 | L2 | CO2 |

| x | 0 | 1 | 2 | 5 |
|---|---|---|---|---|
| f(x) | 2 | 3 | 12 | 147 |

**Module – 5**

| | | | | | |
|---|---|---|---|---|---|
| Q.9 | a. | Employ Taylor series method to find an approximate solution to find y at $x = 0.1$ given $\frac{dy}{dx} = x - y^2$, $y(0) = 1$ by considering upto fourth degree term. | 6 | L2 | CO2 |
| | b. | Using Runge -Kutta method of fourth order, compute $y(0.2)$ given that $\frac{dy}{dx} = 3x + \frac{y}{2}, y(0) = 1$ by taking $h = 0.2$ | 7 | L2 | CO2 |
| | c. | If $\frac{dy}{dx} = 2e^x - y$ and $y(0) = 2$, $y(0.1) = 2.010$, $y(0.2) = 2.040$, $y(0.3) = 2.090$ find $y(0.4)$ corrected to 4 decimal places by using Milnes Predictor corrector formula. | 7 | L2 | CO2 |
| | | **OR** | | | |
| Q.10 | a. | Using Euler's modified method, find y at $x = 0.1$ given $\frac{dy}{dx} = \frac{y-x}{y+x}, y(0) = 1$ by taking $h = 0.1$ | 6 | L2 | CO2 |
| | b. | Using Runge - Kutta method of fourth order, compute $y(1.1)$ given that $\frac{dy}{dx} = xy^{\frac{1}{3}}, y(1) = 1$ by taking $h = 0.1$ | 7 | L2 | CO2 |
| | c. | Using Adams-Bashforth method, determine $y(0.4)$ given $\frac{dy}{dx} = x^2 + y^2$ and $y(0) = 1$, $y(0.1) = 1.1113$, $y(0.2) = 1.2507$, $y(0.3) = 1.426$. | 7 | L2 | CO2 |

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**1BMATE201**

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026

# Calculus, Laplace Transform and Numerical Techniques : EEE Stream

Time: 3 hrs. Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*
*3. VTU Formula Hand Book is permitted.*

| | | **Module – 1** | **M** | **L** | **C** |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Evaluate, $\int_{-1}^{1}\int_{0}^{z}\int_{x-z}^{x+z}(x+y+z)\,dydxdz$ | **6** | **L3** | **CO1** |
| | **b.** | Evaluate, $\int_{0}^{1}\int_{x}^{\sqrt{x}} xy\,dydx$ by changing the order | **7** | **L3** | **CO1** |
| | **c.** | Prove that $\beta(m,n)=\dfrac{\gamma(m)\gamma(n)}{\gamma(m+n)}$ | **7** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Evaluate $\int_{0}^{\infty}\int_{0}^{\infty} e^{-(x^2+y^2)}dxdy$ by changing to polar coordinates . | **6** | **L3** | **CO1** |
| | **b.** | Find the area of the ellipse $\frac{x^2}{a^2}+\frac{y^2}{b^2}=1$ by double integration. | **7** | **L2** | **CO1** |
| | **c.** | Prove that $\int_{0}^{\pi/2}\frac{d\theta}{\sqrt{\sin\theta}} \times \int_{0}^{\pi/2}\sqrt{\sin\theta}\,d\theta = \pi$ | **7** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Find the directional derivative of $\emptyset = x^2yz+4xz^2$ at $(1,-2,-1)$ along $2i-j-2k$ | **6** | **L2** | **CO1** |
| | **b.** | Find the div$(\vec{F})$, curl$(\vec{F})$where $\vec{F}=\nabla(x^3+y^3+z^3-3xyz)$ | **7** | **L2** | **CO1** |
| | **c.** | Show that $\vec{F}=(y+z)i+(z+x)j+(x+y)k$ is irrotational . Also find a scalar function $\emptyset$ such that $\vec{F}=\nabla\emptyset$ | **7** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.4** | **a.** | Find the angle between the surfaces $x^2+y^2-z^2=4$ and $z=x^2+y^2-13$ at $(2,1,2)$ | **6** | **L2** | **CO1** |
| | **b.** | If $\vec{F}=xyi+yzj+zxk$, evaluate $\int_c \vec{F}.\overrightarrow{dr}$ where c is the curve represented by $x=t$, $y=t^2$, $z=t^3, -1\le t\le 1$ | **7** | **L3** | **CO1** |



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| | | | Marks | Level | CO |
|---|---|---|---|---|---|
| Q.4 | c. | Employ Green's theorem in a plane to show that the area enclosed by a plane curve c is $\frac{1}{2}\oint xdy - ydx$ and hence find the area of the ellipse $\frac{x^2}{a^2}+\frac{y^2}{b^2}=1$ | 7 | L2 | CO1 |

**Module – 3**

| | | | | | |
|---|---|---|---|---|---|
| Q.5 | a. | Find a real root of $xe^x - 2 = 0$ correct to three decimal places using Newton – Raphson method. | 6 | L2 | CO2 |
| | b. | The area of a circle (A) corresponds to diameter D is given below. Find the area corresponding to diameter 105 using appropriate interpolation formula. (see table below) | 7 | L2 | CO2 |
| | c. | Evaluate $\int_0^{0.3}(1-8x^3)^{\frac{3}{2}}dx$ by applying Simplson's $\frac{3}{8}$ rule with 7 ordinates. | 7 | L3 | CO2 |

Table for Q.5 b.:

| D | 80 | 85 | 90 | 95 | 100 |
|---|---|---|---|---|---|
| A | 5026 | 5674 | 6362 | 7088 | 7854 |

**OR**

| | | | | | |
|---|---|---|---|---|---|
| Q.6 | a. | Compute the real root of $x\log_{10}x - 1.2 = 0$ by using Regula falsi method. Carry out three iterations. | 6 | L2 | CO2 |
| | b. | Use Newton's divided difference formula, find f(4) (see table below) | 7 | L2 | CO2 |
| | c. | Use Lagrange's interpolation formula to find y at x = 10 (see table below) | 7 | L2 | CO2 |

Table for Q.6 b.:

| x | 0 | 2 | 3 | 6 |
|---|---|---|---|---|
| y | -4 | 2 | 14 | 158 |

Table for Q.6 c.:

| x | 5 | 6 | 9 | 11 |
|---|---|---|---|---|
| y | 12 | 13 | 14 | 16 |

**Module – 4**

| | | | | | |
|---|---|---|---|---|---|
| Q.7 | a. | Use Taylor's series method to find y at x = 0.1, considering terms upto the third degree given that $\frac{dy}{dx} = x^2 + y^2$ and $y(0) = 1$ | 6 | L2 | CO2 |
| | b. | Given $\frac{dy}{dx} = 3x + \frac{y}{2}$, $y(0) = 1$. Compute $y(0.2)$ by taking $h = 0.2$ using RK method of fourth order. | 7 | L2 | CO2 |
| | c. | Given that $\frac{dy}{dx} = x - y^2, y(0) = 0, y(0.2) = 0.02, y(0.4) = 0.0795, y(0.6) = 0.1762$. Compute y at x = 0.8 by applying Milne's method. | 7 | L2 | CO2 |



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| | | | | | |
|---|---|---|---|---|---|
| **OR** | | | | | |
| **Q.8** | **a.** | Using modified Euler's method find $y(0.1)$ given that $\frac{dy}{dx} = x^2 + y$, $y(0) = 1$ by taking $h = 0.05$. Perform two iterations in each step. | **6** | **L2** | **CO2** |
| | **b.** | Use fourth oder RK method to solve $(x + y)\frac{dy}{dx} = 1,\ \ y(0.4) = 1$ at $x = 0.5$ correct to four decimal places. | **7** | **L2** | **CO2** |
| | **c.** | If $y' = 2e^x - y, y(0) = 2, y(0.1) = 2.010, y(0.2) = 2.040, y(0.3) = 2.090$ find $y(0.4)$ correct to four decimal places by using Adams – Bashforth predicator and corrector method. Use corrector formula twice. | **7** | **L2** | **CO2** |
| **Module – 5** | | | | | |
| **Q.9** | **a.** | Find $L[te^{-2t}\sin 4t]$ | **6** | **L2** | **CO3** |
| | **b.** | Find the LT of $f(t) = \begin{cases} E, & 0 < t < a/2 \\ -E, & \frac{a}{2} < t < a \end{cases}$ where $f(t + a) = f(t)$ | **7** | **L2** | **CO3** |
| | **c.** | Express the following in terms of unit step function and hence find LT $f(t) = \begin{cases} 1, & 0 < t \le 1 \\ t, & 1 < t \le 2 \\ t^2, & t > 2 \end{cases}$ | **7** | **L2** | **CO3** |
| **OR** | | | | | |
| **Q.10** | **a.** | Find $L^{-1}\left[\frac{s+5}{s^2-6s+13}\right]$ | **6** | **L2** | **CO3** |
| | **b.** | Solve $y''(t) + 3y'(t) + 2y(t) = 0$ with $y(0) = 1,\ \ y'(0) = 0$ using laplace transform . | **7** | **L2** | **CO3** |
| | **c.** | Express in terms of unit step function and find LT $f(t) = \begin{cases} t^2, & 0 < t < 2 \\ 4t & 2 < t < 4 \\ 8, & t > 4 \end{cases}$ | **7** | **L2** | **CO3** |

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# CBCS SCHEME

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1BMATM201

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Multivariable Calculus and Numerical Methods : ME Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Hand Book is permitted.***

| | | **Module – 1** | **M** | **L** | **C** |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Evaluate the integral $\int_{-c}^{c}\int_{-b}^{b}\int_{-a}^{a}(x^2+y^2+z^2)\,dzdydx$ | **7** | **L3** | **CO1** |
| | **b.** | Evaluate $\int_0^1\int_x^{\sqrt{x}} xy\ dy\,dx$ by changing the order of the integration. | **7** | **L3** | **CO1** |
| | **c.** | Prove the Relationship between Beta and Gamma functions : $\beta(m,\ n)=\frac{\Gamma(m).\Gamma(n)}{\Gamma(m+n)}$ | **6** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Evaluate $\iint xy(x+y)\,dy\,dx$ taken over the area between $y=x^2$ to $y=x$ | **7** | **L3** | **CO1** |
| | **b.** | Find the volume bounded by the cylinder $x^2+y^2=4$ and the planes $y+z=4$ , $z=0$ | **7** | **L3** | **CO1** |
| | **c.** | Show that $\int_0^{\frac{\pi}{2}}\frac{d\theta}{\sqrt{\sin\theta}}\int_0^{\frac{\pi}{2}}\sqrt{\sin\theta}\ d\theta=\pi$ | **6** | **L3** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Solve the D.E. $\frac{d^3y}{dx^3}+6\frac{d^2y}{dx^2}+11\frac{dy}{dx}+6y=0$ | **6** | **L3** | **CO1** |
| | **b.** | Solve $\frac{d^2y}{dx^2}-4y=\cosh(2x-1)+3^x$ | **7** | **L3** | **CO1** |
| | **c.** | Solve $x^2y''-3xy'+4y=(1+x)^2$ | **7** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.4** | **a.** | Solve $\frac{d^2y}{dx^2}+\frac{dy}{dx}+y=\sin 2x$ | **6** | **L3** | **CO1** |
| | **b.** | Solve: $y''+3y'+2y=12x^2$ | **7** | **L3** | **CO1** |
| | **c.** | Solve $(2x+1)^2y''-6(2x+1)y'+16y=8(2x+1)^2$ | **7** | **L3** | **CO1** |



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## Module – 3

**Q.5**

**a.** If $\vec{F} = xyz\hat{i} + 3x^2y\hat{j} + (xz^2 - y^2z)\hat{k}$, find the div$\vec{F}$ and curl$\vec{F}$ at $(2, -1, 1)$. — 6 | L3 | CO1

**b.** Find the directional derivative of the function $\varphi = xy^2 + yz^3$ at $(2, -1, 1)$ along $\hat{i} + 2\hat{j} + 3\hat{k}$ — 7 | L3 | CO1

**c.** Find the angle between the surfaces or normal surfaces $x^2 + y^2 + z^2 = 9$ and $z = x^2 + y^2 - 3$ at $(2, -1, 2)$. — 7 | L3 | CO1

OR

**Q.6**

**a.** P.T $\vec{F} = (y+z)\hat{i} + (z+x)\hat{j} + (x+y)\hat{k}$ is irrotational. Also find a scalar point function $\varphi$ such that $\vec{F} = \nabla\varphi$. — 7 | L3 | CO1

**b.** If $\vec{F} = (3x^2 + 6y)\hat{i} - (14yz)\hat{j} + (20xz^2)\hat{k}$, evaluate $\int_C \vec{F} \cdot d\vec{r}$ from the point $(0,0,0)$ to $(1,1,1)$ along the curve given by $x = t,\ y = t^2,\ z = t^3$. — 7 | L3 | CO1

**c.** Evaluate $\int_C (xy - x^2)dx + x^2y\,dy$ where C is the closed curve bounded by $y = 0$, $x = 1$ and $y = x$. — 6 | L3 | CO1

## Module – 4

**Q.7**

**a.** Find the real root of the equation $x\log_{10} x = 1.2$ by Regula falsi method, Carry out 3 iterations. — 6 | L3 | CO2

**b.** The population of a town is given by the following data — 7 | L3 | CO2

| Year | 1971 | 1981 | 1991 | 2001 | 2011 |
|---|---|---|---|---|---|
| Population | 19.96 | 39.65 | 58.81 | 77.18 | 94.58 |

Using appropriate interpolation formula calculate the increase in the population from the year 1975 to 2005.

**c.** Evaluate $\int_0^1 \frac{dx}{1+x^2}$ using Simpson's $\frac{1}{3}^{rd}$ rule by taking 5 ordinates (4 equal parts) and hence deduce an approximate value of $\pi$. — 7 | L3 | CO2

OR

**Q.8**

**a.** Use Newton Raphson method to find the real root of the equation $xe^x = 2$, correct to 3 decimal places. — 7 | L3 | CO2

**b.** Find f(0.05) using Newton divided difference formula given that — 7 | L3 | CO2

| x | 0 | 2 | 3 | 5 | 6 |
|---|---|---|---|---|---|
| f(x) | 0 | 6 | 21 | 105 | 186 |

**c.** Evaluate $\int_4^{5.2} \log_e x\, dx$ using Simpson's $\frac{3}{8}^{th}$ rule by taking 6 equal parts. — 6 | L3 | CO2

| | | Module – 5 | | | |
|---|---|---|---|---|---|
| **Q.9** | **a.** | Use Milne's predictor –corrector method Given the differential equation, given $\frac{dy}{dx} = x^2(1+y)$ , find y at x=1.4 . Carry out two corrections for the solution, given that y (1) =1, y (1.1) =1.233, y (1.2) =1.548, y (1.3) =1.979. | **7** | **L3** | **CO2** |
| | **b.** | Using the modified Euler's method, solve the IVP $\frac{dy}{dx} = x + y^2, y(0) = 1$ at points x=0.1 in steps of length h=0.1. Carry out two modifications. | **6** | **L3** | **CO2** |
| | **c.** | Using Runge Kutta method of fourth order solve $\frac{dy}{dx} = \frac{(y^2-x^2)}{(y^2+x^2)}$ for $x = 0.2$ given that $y = 1$ at $x = 0$ initially, by applying Runge – Kutta method of order 4. | **7** | **L3** | **CO2** |
| | | **OR** | | | |
| **Q.10** | **a.** | Using the Taylor's series method , find an approximate solution correct to four decimals at x=0.1 for the IVP$\frac{dy}{dx} = 2y + 3e^x, y(0) = 0$ | **6** | **L3** | **CO2** |
| | **b.** | Using RK method of fourth order , to find y(0.1), given that $\frac{dy}{dx} = x^2 - y$and$y(0) = 1$ take$h = 0.1$ | **7** | **L3** | **CO2** |
| | **c.** | Use Adams -Bash forth method to find the value of y at x=0.8, given $\frac{dy}{dx} = x - y^2$ , where y(0)=0 , y(0.2)=0.02 , y(0.4)=0.0795 , y(0.6)=0.1762. Apply corrector formula twice. | **7** | **L3** | **CO2** |

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# CBCS SCHEME

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**1BMATS201**

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Numerical Methods : CSE Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Hand Book is permitted.***

| | | **Module – 1** | **M** | **L** | **C** |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Define Error, Absolute error, Relative error and Percentage errors. | **6** | **L2** | **CO1** |
| | **b.** | Using Newton Raphson method find the real root of $xe^x - 2 = 0$ correct to four decimal places. | **7** | **L3** | **CO1** |
| | **c.** | Using Bisection method find the real root of the equation $x^3 - 2x - 5 = 0$. Carry out 4 iterations. | **7** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Round off the number 37.46235 to 4 significant figures and compute (i) Absolute error, (ii)Relative error (iii) percentage error | **6** | **L2** | **CO1** |
| | **b.** | Find a real root of the equation $x\log_{10}x - 1.2 = 0$ by regula falsi method correct to four decimal places. | **7** | **L3** | **CO1** |
| | **c.** | Using Secant method find the real root of the equation $x^3 + x^2 - 1 = 0$. Carry out 4 iterations. | **7** | **L3** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Find the condition number of an invertible matrix $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$ with respect to $L_1$ norm. | **5** | **L3** | **CO1** |
| | **b.** | Apply LU Decomposition method to solve $x + y + z = 1;\quad 3x + y - 3z = 5;\quad x - 2y - 5z = 10$ | **8** | **L3** | **CO1** |
| | **c.** | Find the largest eigen value and eigen vector of the matrix A using Rayleigh's power method by taking the initial vector as $[1,1,1]'$ $A = \begin{bmatrix} 6 & -2 & 2 \\ -2 & 3 & -1 \\ 2 & -1 & 3 \end{bmatrix}$ | **7** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.4** | **a.** | Verify whether the following system of linear equations is well poised or not using spectral norm $\begin{bmatrix} 2.1 & 1.8 \\ 6.2 & 5.3 \end{bmatrix}\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 2.1 \\ 6.2 \end{bmatrix}$ | **6** | **L2** | **CO1** |
| | **b.** | Solve by Gauss Seidel method $20x + y - 2z = 17,\quad 3x + 20y - z = -18,\quad 2x - 3y + 20z = 25.$ Carry out 5 iterations taking $X' = (1,1,1)$ | **7** | **L3** | **CO1** |



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**Q.4 c.** Using Jacobi's method find the approximate eigen values and eigen vectors of $A = \begin{bmatrix} 4 & 1 \\ 1 & 4 \end{bmatrix}$ — 7 | L3 | CO1

## Module – 3

**Q.5 a.** From the following table find the number of students who obtained marks between 40 and 45 — 6 | L3 | CO1

| Marks | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 |
|---|---|---|---|---|---|
| No of students | 31 | 42 | 51 | 35 | 31 |

**b.** Obtain the piecewise linear interpolating polynomial for the data and hence interpolate at x = 0.5 and 2.5 — 7 | L3 | CO1

| x | 0 | 1 | 2 | 3 |
|---|---|---|---|---|
| f(x) | 1 | 2 | 5 | 10 |

**c.** Evaluate f(3) from the following table using Newton's divided interpolation formulae. — 7 | L3 | CO1

| x | 0 | 1 | 4 | 8 | 10 |
|---|---|---|---|---|---|
| f(x) | -5 | -14 | -125 | -21 | 355 |

**OR**

**Q.6 a.** Apply appropriate interpolation formula to find y(3). — 6 | L3 | CO1

| x | 0 | 2 | 4 | 6 | 8 | 10 |
|---|---|---|---|---|---|---|
| y | 0 | 4 | 56 | 204 | 496 | 980 |

**b.** Obtain the piecewise quadratic interpolating polynomial for the data and hence find f(-0.5) and f(2) — 7 | L3 | CO1

| x | -2 | 0 | 1 | 3 | 4 |
|---|---|---|---|---|---|
| f(x) | -23 | 1 | 4 | 82 | 193 |

**c.** Find the Polynomial f(x) using Lagrange's Interpolation formula given — 7 | L3 | CO1

| x | 0 | 1 | 2 | 5 |
|---|---|---|---|---|
| f(x) | 2 | 3 | 12 | 147 |

## Module – 4

**Q.7 a.** Solve $\cos x\,(e^y + 1)dx + \sin x\, e^y dy = 0.$ — 6 | L3 | CO2

**b.** Solve $\frac{d^2y}{dx^2} - 4y = \cosh(2x - 1) + 3^x$ — 7 | L3 | CO2

**c.** Solve $(D^2 + 3D + 2)y = 1 + 3x + x^2.$ — 7 | L3 | CO2

**OR**

**Q.8 a.** Solve $\frac{dy}{dx} + \frac{y}{x} = x^2y^6$ — 6 | L3 | CO2

**b.** Solve $\left(3x^2y + \frac{y}{x}\right)dx + (x^3 + \log_e x)dy = 0$ — 7 | L3 | CO2

**c.** Solve $(D^2 - 4)y = e^x + \cos 2x.$ — 7 | L3 | CO2

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| | | | | | |
|---|---|---|---|---|---|
| **Module – 5** | | | | | |
| **Q.9** | **a.** | Using Simpson's one third rule to find $\int_0^{0.6} e^{-x^2}\, dx$ by taking seven ordinates. | **6** | **L3** | **CO2** |
| | **b.** | Evaluate y(1.4) by Milne's method, for the differential equation, $\frac{dy}{dx} = x^2(1+y)$ given that $y(1) = 1,\ y(1.1) = 1.233,\ y(1.2) = 1.548,$ and $y(1.3) = 1.979.$ | **7** | **L3** | **CO2** |
| | **c.** | Find the solution of $\frac{dy}{dx} = x^2y - 1$, by Taylor's series method at x = 0.2 considering up to 4th degree terms, given that y(0) = 1. | **7** | **L3** | **CO2** |
| **OR** | | | | | |
| **Q.10** | **a.** | Using Runge Kutta method of 4th order solve $\frac{dy}{dx} = \frac{(y^2 - x^2)}{(y^2 + x^2)}$ with y(0) = 1 at x = 0.2. | **6** | **L3** | **CO2** |
| | **b.** | Applying Modified Euler's method, find y(0.2) by solving the equation $\frac{dy}{dx} = x - y^2$, with y(0) = 1 taking h = 0.1 | **7** | **L3** | **CO2** |
| | **c.** | Evaluate $\int_0^1 \frac{x}{1+x^2}\, dx$ using Weddle's rule (n = 6) | **7** | **L3** | **CO2** |

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# CBCS 2022 – SCHEME

**BMEL305/BRIL305**

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## Third Semester B.E. Degree Examination, June/July 2026

## INTRODUCTION TO MODELLING AND DESIGN FOR MANUFACTURING

**Time: 3 Hours** **Max.Marks:100**

**Note:** 1. Answer all questions

2. Use first angle projections only

3. All the dimensions are in mm

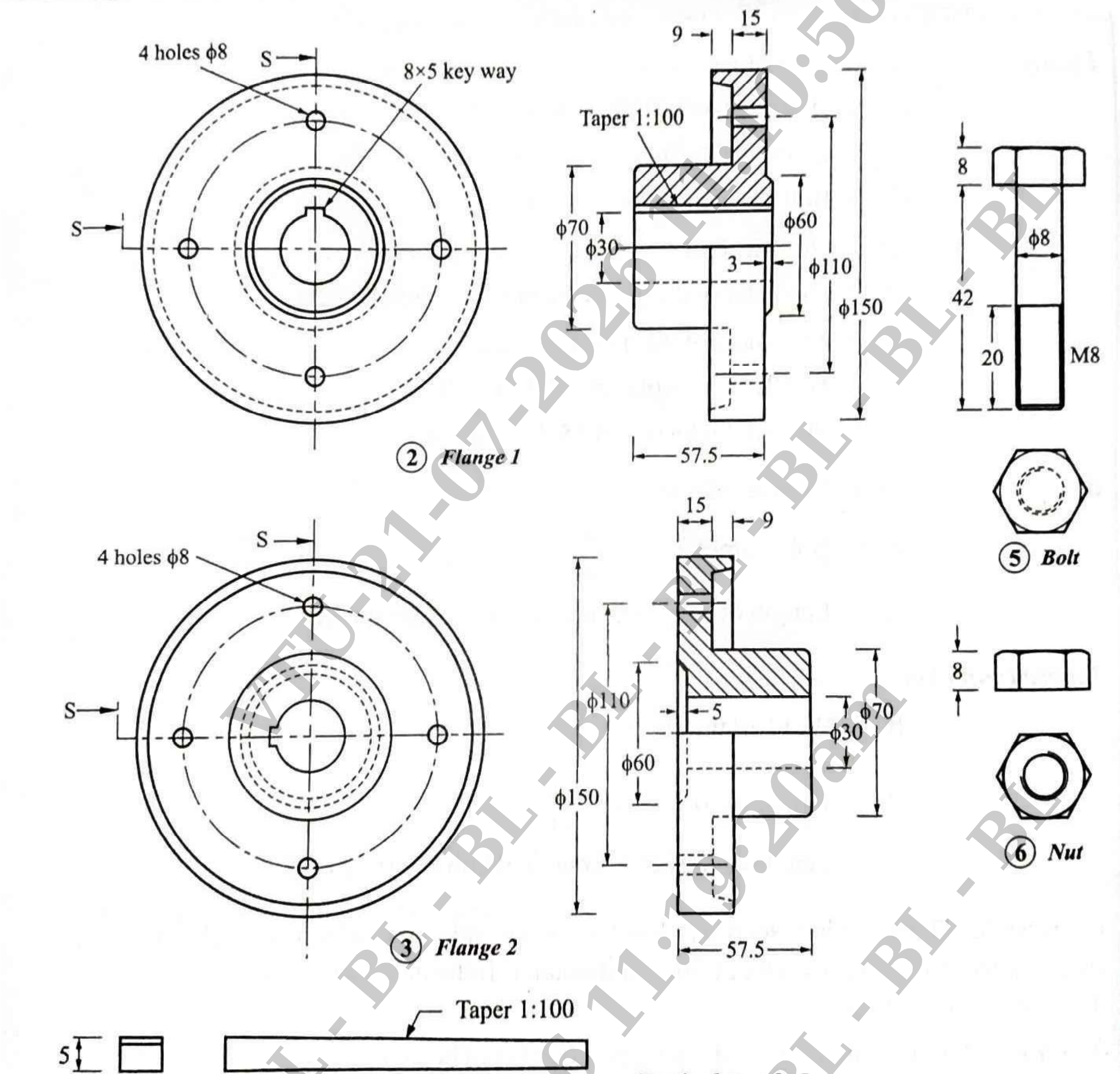
4. If any data is missing, it may be suitably assumed and mentioned.

| Module - 1 | | |
|---|---|---|
| **Q. No.** | | **Marks** |
| **1** | Draw the profile of BSW screw thread of pitch 40mm and diameter d=20mm.Show at least two threads | **20** |
| **Module - 2** | | |
| **2** | A protected type flange coupling is used to connect the two shaft of 30 mm diameter. Draw the half sectional front view and side view. Take number of bolts as 4. | **30** |
| **Module – 3** | | |
| **3** | The details parts of screw jack are shown in Fig Q3. Assemble the parts and show the following views:<br>1. Half sectional front view. 2. top view | **50** |

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Signature:

Examiner 2:
Name:
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***Particulars of parts***

| *Part No* | *Description* | *Material* | *No. off* |
|---|---|---|---|
| 1 | Shaft | Steel | 2 |
| 2 | Flange 1 | Cast iron | 1 |
| 3 | Flange 2 | Cast iron | 1 |
| 4 | Tapered sunk key | Steel | 2 |
| 5 | Hexagonal bolt | Steel | 4 |
| 6 | Hexagonal nut | Steel | 4 |

***Details of protected type flange coupling***

**Fig. Q2**

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Examiner 2:
Name:
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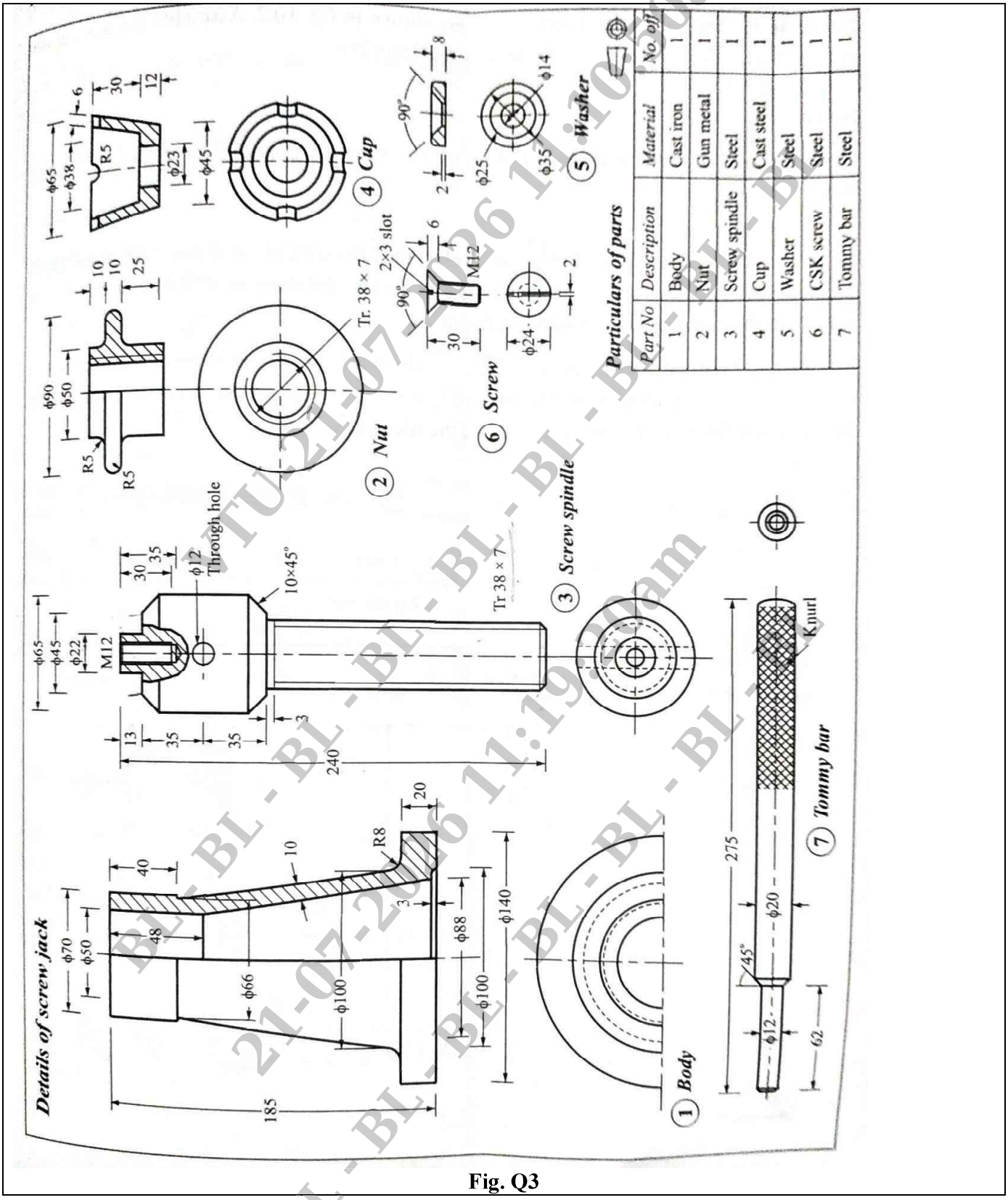



**Fig. Q3**

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Examiner 2:
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# CBCS SCHEME

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BPHYS102/202

## First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Quantum Physics and Applications (CSE stream)

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Hand Book is permitted.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | State Heisenberg's uncertainty principle. Mention its physical significance and illustrate broadening of spectral line using uncertainty principle. | 8 | L2 | CO1 |
| | b. | Set-up Schrodinger's time independent wave equation for a particle in one dimension and mention the same in three dimensions. | 8 | L2 | CO1 |
| | c. | An electron is associated with a de-Broglie wavelength of 1nm. Find the kinetic energy of the electron in eV. | 4 | L3 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Discuss de-Broglie hypothesis and derive an expression for de-Broglie wavelength. Also discuss the concept of expectation values with its physical significance. | 8 | L2 | CO1 |
| | b. | Find the Eigen functions and energy Eigen values for particle in a one dimensional potential well of infinite height. | 8 | L2 | CO1 |
| | c. | In Planck's constant experiment the knee voltage of a blue LED emitting light wavelength 490nm is 2.54V. Calculate Planck's constant. | 4 | L3 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Enumerate the assumptions of Quantum free electron theory of metals and discuss the success of Quantum free electron theory of metals. | 8 | L2 | CO2 |
| | b. | Define Fermi level in semiconductor. Show that it always lies mid-way between conduction band and valence band in the case of intrinsic semiconductor. | 7 | L2 | CO2 |
| | c. | Find the temperature at which the probability of occupancy is 0.95 at an energy level 0.3eV below Fermi level. | 5 | L3 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Describe different electron scattering mechanisms in solids. | 8 | L2 | CO2 |
| | b. | Define Fermi factor and discuss the variation of Fermi factor with temperature and energy. | 7 | L2 | CO2 |
| | c. | The concentration of electrons at room temperature in an extrinsic semiconductor used in Hall experiment is $1.7\times10^{23}/m^3$. If a current of 100 mA flows through the semiconducting strip of thickness 1mm and strength of magnetic field is 3.6 $Wb/m^2$, estimate the Hall coefficient and Hall voltage. | 5 | L3 | CO2 |



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|---|---|---|---|---|---|
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Explain Silsbee effect. Derive an expression for critical current for a current carrying superconductor wire. | **8** | **L2** | **CO3** |
| | **b.** | Explain in detail BCS theory of superconductor and mention the limitations of BCS theory. | **7** | **L2** | **CO3** |
| | **c.** | Calculate the critical current for a wire of lead having diameter of 1mm at 4.2K. The critical temperature for lead is 7.18K and critical field is $6.5 \times 10^4$ A/m at 0K. | **5** | **L3** | **CO3** |
| | | **OR** | | | |
| **Q.6** | **a.** | What is SQUID? Mention two applications of it. Explain the construction and working of DC SQUID. | **8** | **L2** | **CO3** |
| | **b.** | Explain Meissner effect and two fluid model with suitable diagram. | **8** | **L2** | **CO3** |
| | **c.** | The critical field of Niobium is $10^4$ A/m at 8K and $2 \times 10^5$ A/m at 0K. Calculate the transition temperature of the element. | **4** | **L3** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Describe the construction and working of semiconductor diode laser. | **8** | **L2** | **CO4** |
| | **b.** | What is attenuation in an optical fiber? Discuss the attenuation mechanisms in optical fiber communication. | **8** | **L2** | **CO4** |
| | **c.** | In a diffraction grating experiment the distance between screen and grating is 20 cm and the average distance of the second order spot is 2.7 cm. Calculate the wavelength of the laser light. (Grating constant = $1 \times 10^{-5}$ m.) | **4** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain the construction and working of Mach-Zehnder interferometer. Mention its applications. | **8** | **L2** | **CO4** |
| | **b.** | What are optical modulators? Explain Pockels effect and Kerr effect. | **7** | **L2** | **CO4** |
| | **c.** | The sum of refractive indices of core and cladding in a step index optical fiber is 3.12 and their difference is 0.08. The diameter of the core is 50μm. Find V- number at wavelength 594 nm. | **5** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Mention any two properties of a qubit. With a neat diagram explain the representation of qubits using Bloch sphere. | **8** | **L2** | **CO5** |
| | **b.** | Discuss the working of T gate with its matrix representation and action on \|0> and \|1> states. | **8** | **L2** | **CO5** |
| | **c.** | Show that Hadamard gate is unitary. | **4** | **L3** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Explain anharmonicity along with a relevant diagram and its importance in quantum computing. | **8** | **L2** | **CO5** |
| | **b.** | Explain the operation of CNOT gate on four two qubits. Mention truth table and matrix representation. | **8** | **L2** | **CO5** |
| | **c.** | A liner operator ‘X’ operates such that X\|0> =\|1> and X\|1> =\|0>. Find matrix representation of ‘X’. | **4** | **L3** | **CO5** |

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# CBCS SCHEME

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1BPLC105E/205E

## First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Introduction to C Programming (For Non IT programmes)

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Explain the basic structure of a C Program with an Example. | 10 | L2 | CO1 |
| | b. | What is a Variable? Mention the rules for forming variables. | 5 | L1 | CO1 |
| | c. | What is a Flowchart? Draw the Flowchart to find area of a circle. | 5 | L2 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | What is a C Token? Explain different types of C Tokens. | 10 | L2 | CO1 |
| | b. | What is a Data Type? Explain Data Types in C. | 5 | L2 | CO1 |
| | c. | What is an Algorithm? Write an algorithm to convert a given Temperature in Fahrenheit to Temperature in Celsius. | 5 | L2 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Write a C Program to check for the voting Eligibility of a citizen. | 5 | L3 | CO2 |
| | b. | Explain Switch statement in C with syntax. | 5 | L2 | CO2 |
| | c. | Explain the following operators with a Fragment of C code:<br>i) Relational operators ii) Logical operators | 10 | L3 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Write a C program to check whether a given number is prime or not. | 5 | L3 | CO2 |
| | b. | Explain for loop with a program Example. | 5 | L2 | CO2 |
| | c. | Explain the following C statements with a Fragment of C code:<br>i) break ii) continue | 10 | L3 | CO2 |
| | | **Module – 3** | | | |
| Q.5 | a. | Explain One Dimensional Array Declaration and Initialization with an Example. | 8 | L2 | CO3 |
| | b. | Explain any Four String Handling Functions. | 8 | L2 | CO3 |
| | c. | Write a C program to check for Equality of Two Given Strings. | 4 | L3 | CO3 |



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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.6** | **a.** | Explain Two Dimensional Array Declaration and Initialization with an example. | **8** | **L2** | **CO3** |
| | **b.** | Discuss on any Two ways of reading strings and Writing strings. | **8** | **L2** | **CO3** |
| | **c.** | Write a C Program to find Transpose of a given Matrix. | **4** | **L3** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | What are User-Defined Functions? Explain the elements of User-Defined Functions with an example. | **10** | **L2** | **CO4** |
| | **b.** | Write a C program to find GCD and LCM of Two numbers using user defined Function. | **10** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain Nesting of Functions with a program example. | **10** | **L2** | **CO4** |
| | **b.** | Write C Functions for the following categories of functions:<br>i) No Arguments and No Return value<br>ii) Argument but No Return value | **10** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Define a Structure in C. Explain the creation of structure and Initialization with an example. | **10** | **L2** | **CO5** |
| | **b.** | Write a C Program to create an array of structures to store book details and check whether a specific book is available or not. | **10** | **L3** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | What are Pointers? Explain with a Program example. | **10** | **L2** | **CO5** |
| | **b.** | Write C programs for each of the following using pointers.<br>i) To Swap Two variables<br>ii) To add Two variables of int Types. | **10** | **L3** | **CO5** |

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CBCS SCHEME

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1BPLC105B/205B

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Python Programming (for CSE and Allied programmes)

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Differentiate between a syntax error and a runtime error with examples. | **6** | **L2** | **CO1** |
| | **b.** | What is two-dimensional table? Explain the python code for printing multiples of table 2. | **6** | **L2** | **CO1** |
| | **c.** | Write the output of the following:<br>>>>len("hello")<br>>>>3 ** 2<br>>>>7 / 4<br>>>> 7 // 4<br>>>> int("23 bottles")<br>>>> float("123.45")<br>>>>str(123.45)<br>>>> 2**4+1 | **8** | **L1** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | What is meant by function composition? Illustrate with an example. | **6** | **L1** | **CO1** |
| | **b.** | Compare the for and while loops in Python with examples. | **6** | **L2** | **CO1** |
| | **c.** | Write a python code to (i) count the number of decimal digits in a positive integer. (ii) count the number of 0's or 5's in a positive integer. | **8** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain mutability in lists. Illustrate the difference between modifying a list and creating a clone of it using examples. | **8** | **L3** | **CO2** |
| | **b.** | Develop a program to count the number of words in a given line of text. | **6** | **L3** | **CO2** |
| | **c.** | Write a code snippet to explain string format method. | **6** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain the string operations in Python for slicing, concatenation, repetition, and comparison with suitable examples. | **10** | **L2** | **CO2** |
| | **b.** | What is a tuple? Give example. Also explain tuple packing and unpacking with suitable examples. | **6** | **L2** | **CO2** |
| | **c.** | Write a note on find method and split method. | **4** | **L1** | **CO2** |

| | | | | | |
|---|---|---|---|---|---|
| **Module – 3** | | | | | |
| **Q.5** | **a.** | Define a dictionary in Python. Explain dictionary methods like key( ) and values( ). | **8** | **L2** | **CO2** |
| | **b.** | What is masking in NumPy? Develop a program to illustrate masking to filter array elements. | **6** | **L3** | **CO3** |
| | **c.** | With example differentiate reading a file line-at-a-time and Reading the whole file at once. | **6** | **L3** | **CO4** |
| **OR** | | | | | |
| **Q.6** | **a.** | Explain del statement in python dictionary. | **5** | **L2** | **CO2** |
| | **b.** | Write a code snippet to get the shape of an array. | **5** | **L1** | **CO3** |
| | **c.** | Develop a program to sort the contents of a text file and write the sorted contents into a separate text file. [Hint:Use string methods strip( ), len( ), list methods sort( ), append( ), and file methods open( ), readlines( ), and write( )] | **10** | **L3** | **CO4** |
| **Module – 4** | | | | | |
| **Q.7** | **a.** | Develop python code using user defined functions to generate a list of 5 random month numbers out of 12 months with duplicity and without duplicity. | **8** | **L3** | **CO3** |
| | **b.** | Define Scope and explain the different scopes in python. Also explain the lookup rules with examples. | **6** | **L2** | **CO3** |
| | **c.** | Describe the three import statement variants with suitable examples. | **6** | **L2** | **CO3** |
| **OR** | | | | | |
| **Q.8** | **a.** | Explain mutable versus immutable data types. Also explain the concept of aliasing with example. | **8** | **L2** | **CO3** |
| | **b.** | Explain __init__( ) and __str__( ) methods with examples. | **6** | **L2** | **CO3** |
| | **c.** | Develop a Python program to create your own module with one function and import it in another file. | **6** | **L3** | **CO3** |
| **Module – 5** | | | | | |
| **Q.9** | **a.** | Explain the concept of sameness using is and == operator. | **6** | **L2** | **CO5** |
| | **b.** | Describe deepcopy( ) and shallowcopy( ) with suitable code example. | **6** | **L2** | **CO5** |
| | **c.** | Define Polymorphism with a suitable python program. | **8** | **L2** | **CO5** |
| **OR** | | | | | |
| **Q.10** | **a.** | Explain the concept of operator overloading in Python. With suitable code snippets, demonstrate how the + operator is overloaded for a user-defined MyTime class. Also explain how the * operator can be overloaded using both __mul__( ) and __rmul__( ) methods in a Point class. | **10** | **L2** | **CO5** |
| | **b.** | Define Classes and Objects in python. Construct a class called rectangle and initialize it with height = 100, width = 200, starting point as (x = 0, y = 0) and write the method to display the center point coordinates of a rectangle. | **10** | **L2** | **CO5** |

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# CBCS SCHEME

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Question Paper Version : A

## First Semester B.Arch./B.Plan. Degree Examination, June/July 2026
## Communicative English

Time: 2 hrs. Max. Marks: 100

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **Hundred questions**, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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**Choose the correct option from those given in each of the sentences below.**

1. The individual who begins the process of communication is known as the :
a) Receiver b) Medium c) Sender d) Decoder

2. Informal exchange of information among employees is called :
a) Circular Communication b) Grapevine Communication
c) Downward Communication d) Official Communication

3. In the communication process, feedback is mainly provided by the :
a) Sender b) Channel c) Receiver d) Encoder

4. Face-to-face interaction is considered effective because it
a) Is economical b) Allows instant response
c) Is always formal d) Uses written words

5. The 'C' of Communication that emphasizes accuracy using facts and data is
a) Courtesy b) Concreteness c) Clarity d) Conciseness

6. Communication that occurs within an individual is called :
a) Interpersonal b) Intrapersonal c) Public d) Mass

7. Communication that occurs across departments and levels is termed as :
a) Horizontal b) Diagonal c) Vertical d) External

8. Which of the following is a physical obstacle to communication?
a) Attitude b) Distance c) Culture d) Language



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**9.** Facial expressions, body movements and gestures fall under :
a) Kinesics b) Proxemics c) Chronemics d) Haptics

**10.** Encoding refers to the act of :
a) Understanding the message b) Converting ideas into words or symbols
c) Receiving information d) Giving feedback

**11.** Written communication is most suitable for :
a) Emotional expression b) Legal and official records
c) Immediate clarification d) Informal talks

**12.** Which of the following is/are not included in the tools of verbal communication?
a) Listening b) Reading c) Writing d) Graphics

**13.** In communication, when people do not talk much, question even less, and actually do very little is called
a) Assertive style b) Passive style
c) Passive-aggressive style d) Aggressive style

**14.** Effective communication is best described as a :
a) One-way process b) Two-way process c) Random process d) Linear process

**15.** Communication between a Supervisor and a worker generally follows :
a) Horizontal flow b) Vertical flow c) Diagonal flow d) External flow

**Choose the best word to describe the parts of speech from those given in each of the sentences below as underlined :**

**16.** She <u>rarely</u> visits her native place.
a) Adjective b) Adverb c) Verb d) Noun

**17.** The <u>brave</u> soldiers defended the nation.
a) Noun b) Verb c) Adjective d) Pronoun

**18.** Ramesh <u>and</u> Suresh attended the seminar.
a) Preposition b) Conjunction c) Interjection d) Pronoun

**19.** The book is placed <u>under</u> the table.
a) Adverb b) Adjective c) Preposition d) Verb

**20.** <u>Oh</u>! We have missed the train.
a) Noun b) Interjection c) Conjunction d) Pronoun

**Choose the correct type of noun for the underlined word :**

**21.** The <u>Jury</u> announced it's decision.
a) Common b) Proper c) Collective d) Abstract

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**22.** Patience is essential in life.
a) Proper b) Common c) Abstract d) Material

**23.** Mysuru is famous for its palaces.
a) Common b) Proper c) Collective d) Abstract

**24.** Choose the uncountable noun:
a) Bottle b) Milk c) Pen d) Coin

**25.** Identify the Singular Possessive noun :
a) Teacher's b) Child's c) Children d) Men's

**Choose the correct verb form :**

**26.** Time and tide _____ for none.
a) wait b) waits c) waited d) waiting

**27.** He _____ to college by bus every day.
a) go b) goes c) gone d) going

**28.** They _____ watching television when the power failed.
a) is b) are c) was d) were

**29.** I _____ the report already
a) complete b) has completed c) have completed d) completing

**30.** If it rains, the event _____
a) will cancel b) will be cancelled c) cancelled d) cancels

**31.** The Sun _____ in the East
a) rise b) rises c) rising d) has riser

**32.** Identify the Abstract noun :
a) Silver b) Courage c) Group d) Chair

**33. Choose the Pronoun :**

a) Quickly b) He c) Beautiful d) Near

**34.** A _____ of birds flew across the sky.
a) Pack b) Flock c) Group d) Herd

**35.** There is _____ water left in the bottle.
a) Many b) Few c) Some d) Several

**Choose the correct Phonetics and Silent letters and non-silent letters :**

**36.** Number of Vowel sounds in English is :
a) 5 b) 12 c) 20 d) 24



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**37.** Number of Consonant sounds in English is :
a) 21 b) 24 c) 26 d) 44

**38.** Identify the word with a silent 'k'
a) Know b) Kite c) Skill d) Back

**39.** Which word contains a silent 'ℓ'?
a) Call b) Walk c) Live d) Late

**40.** Identify the word with |u :| sound :
a) Full b) Moon c) Blood d) Flood

**41.** 'Psychiatry' begins with a silent :
a) P b) S c) T d) Y

**42.** I _____ now London very well
a) w b) k c) g d) ng

**43.** The word "Listen" has a silent.
a) L b) S c) T d) N

**44.** Which word has a silent 'h'?
a) Honest b) House c) Heavy d) History

**45.** Reading is easier than _____ riting
a) ing b) r c) w d) ng

**Choose the most suitable answer that identifies the homophones in the sentence** :

**46.** India _____ the cricket match by 26 runs.
a) One b) Won c) Ones d) Owned

**47.** The fisherman _____ a big fish.
a) Court b) Caught c) Catch d) Collect

**48.** The doctor took blood from my _____.
a) Vein b) Vain c) Vaien d) Vyine

**49.** It was good to be back in _____
a) Sink b) Sync c) Synchronic d) Sinken

**50.** She _____ after standing for two hours in a queue.
a) Fainted b) Feinted c) Faint d) Feint

**Choose the correct Prefix or Suffix from the options given to complete the gap** :

**51.** In many Countries it is _____ legal to keep a gun in your house.
a) ill b) un c) il d) el

**52.** Which of the following is the suffix of 'suit. . . .'?
a) Ary b) Able c) Ness d) un



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**53.** Which of the following is the prefix of '. . . . polite'?
a) im b) dis c) in d) il

**54.** The assignment is _____ complete.
a) not b) un c) in d) on

**55.** I just can't believe it! The story is _____ believable!
a) un b) in c) not d) unn

**Choose the correct Articles and Prepositions :**

**56.** He is _____ honest officer.
a) a b) an c) the d) no article

**57.** _____ University was established in 1956
a) A b) An c) The d) no article

**58.** Taj Mahal is _____ famous Monument.
a) a b) an c) the d) no article

**59.** She has lived here ____ five years.
a) since b) for c) from d) by

**60.** The ball rolled _____ the road.
a) on b) across c) in d) under

**61.** He is interested _____ music.
a) in b) on c) with d) at

**62.** I bought ______ Umbrella yesterday.
a) a b) an c) the d) No article

**63.** She stays _____ Delhi _____ India.
a) at, in b) in, in c) on, at d) in, at

**64.** The keys are _____ the drawer.
a) in b) on c) at d) over

**65.** Children go to ____ school regularly.
a) a b) an c) the d) None of these

**66.** The meeting starts ____ 10 a.m.
a) in b) on c) at d) by

**67.** He is good ____ mathematics.
a) at b) in c) with d) for

**68.** She completed ________________ MBA last year.
a) a b) an c) the d) None of these

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69. Share the chocolates ______ the twins.
a) among b) between c) with d) in

70. We must be polite _____ elders
a) for b) with c) to d) on

**Choose the correct questions tags :**

71. You finished the work, _____?
a) did you b) didn't you c) do you d) won't you

72. He is your friend, _________?
a) is he b) isn't he c) doesn't he d) wasn't he

73. She can drive well, ______?
a) can she b) can't she c) does she d) doesn't she

74. Let us start the class, ______?
a) shall we b) will we c) don't we d) shant's we

75. I am late, ________?
a) amn't I b) aren't I c) am I not d) don't I

**Choose the correct word stress :**

76. Correct stress for photographer is :
a) PHO – to – graph - er
b) Pho – To – graph - er
c) pho – to – GRAPH - er
d) pho – to – graph - ER

77. Stress usually falls on the first syllable in :
a) Verbs b) Nouns c) Adverbs d) Prepositions

78. Identify correct stress pattern :
a) CoN – duct (noun) b) con –DUCT (noun)
c) CON – duct (verb) d) All are correct

79. Primary stress in education is on :
a) First syllable b) Second syllable c) Third syllable d) Fourth syllable

80. In most two – syllable verbs, stress is on the :
a) First syllable b) Second syllable c) Both d) None of these

**Choose the correct Synonyms and Antonyms :**

81. Synonyms of Diligent :
a) Careless b) Hard - working c) Lazy d) Slow



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82. Synonyms of Fragile :
a) Tough b) Weak c) Delicate d) Hard

83. Antonym of Ancient
a) Old b) Modern c) Historic d) Antique

84. Antonym of optimist :
a) Cheerful b) Pessimist c) Hopeful d) Confident

85. Synonym of Brief :
a) Long b) Short c) Wide d) Huge

**Choose the Correct Analogies :**

86. Doctor : Hospital :: Teacher : __________
a) Office b) School c) Court d) Market

87. Bird : Fly :: Fish : __________
a) Jump b) Swim c) Walk d) Run

88. Glove : Hand :: Shoe : ________
a) Leg b) Foot c) Toe d) Sock

89. Truck : Cargo ::__________ : ___________
a) Ship : Water b) Aircraft : Fuel
c) Bus : Passengers d) Theatre : Movie

90. Gemini : Zodiac :: _________ : __________
a) Star : Galaxy b) Ministry : Government
c) May : Year d) Channels : Television

**Choose the correct spellings :**

91. a) Occurrence b) Occurence c) Ocurrence d) Occurance

92. a) Maintenance b) Maintainance c) Maintenence d) Maintainence

93. a) accommodate b) accomodate c) acommodate d) accammodate

94. a) argument b) arguments c) arguemint d) arguemintes

95. a) acknowledgment b) acknowledgement
c) acknowlegment d) acknowlegement

**Choose the correct / suitable punctuation mark :**

96. What is your name ______
a) . b) ? c) ! d) ,



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**97.** He brought apples oranges bananas
a) ; b) : c) . d) ,

**98.** She said _____ I am very happy today.
a) : b) , c) ? d) !

**99.** What a wonderful performance ____
a) . b) ? c) ! d) ,

**100.** Please bring the following items _____ pen notebook and file.
a) ; b) , c) : d) .

* * * * *

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CBCS SCHEME

**21EGH28/22BI206**

USN | | | | | | | | | | |

**Question Paper Version : A**

# Second Semester B.Arch./B.Plan./B.Design Degree Examination, June/July 2026

# Professional Writing Skills in English

Time: 2 hrs. Max. Marks: 100

## INSTRUCTIONS TO THE CANDIDATES

1. Answer all the hundred questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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**General English Grammar : Select the correct option.**

1. The train ____ as fast as the bus.
a) went b) running c) moves d) going

2. He ___ a very good grade in the examination.
a) earned b) given c) received d) none of these

3. This almirah ____ too much space.
a) takes up b) takes after c) takes in d) takes to

4. The officer asked the peon ___ why he was late.
a) that b) if c) but d) none of these

5. Resume means ____ for French.
a) Skills b) education c) summary d) course of life

6. I ___ a letter to the principal yesterday.
a) write b) forward c) mailed d) have signed

7. How is good technical writing achieved?
a) Naturally b) By practice c) Listening d) Speaking



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**8.** How do you start a formal letter?
a) By the date b) Sender's address c) Subject d) Salutation

**9.** To send a received mail to another person, you need to ___ the message.
a) Forward b) Reply to c) Reply all d) Copy

**10.** Which of these should be avoided in a précis?
a) Imagery b) Verbs c) Pronouns d) Indirect speech

**11.** Your resume is a tool with one specific purpose.
a) To get a job b) To discuss salary
c) To win an interview d) To know qualification

**12.** Which of these must be avoided in a group discussion?
a) Speaking facts b) Asking question c) Speaking fast d) Speaking with clarity

**13.** The main purpose of a report is to ___.
a) Record emotions b) Analyze a problem
c) Persuade readers d) Convey information

**14.** Listening is the most important skill to promote ___ communication.
a) Kind b) Active c) Bad d) Wrong

**15.** Which among the following is not included in memo?
a) Issuing instructions b) Making requests
c) Issuing suggestions d) Invitations of wedding

**16.** If you begin a letter with "Dear Sir", your should end it with :
a) Yours faithfully b) Yours c) From d) To

**17.** Listening skills are also important to many business roles such as :
a) Managing b) Mentoring c) Marketing research d) All of these

**18.** Reading is a ____ skill.
a) Receptive b) Productive c) Both of these d) None of these

**19.** Communication is a non stop _____
a) Paper b) Process c) Programme d) Plan

**20.** ____ means communication without words.
a) Object communication
b) Written communication
c) Oral communication
d) Non-verbal communication

**Choose the appropriate phrases from the given options to fill in the blanks**

**21.** He wore a turban _____
a) made of silk b) made to silk c) made with silk d) made for silk

**22.** A man in great difficulties ____ me for help.
a) came from b) came to c) came on d) came in

23. Nothing can live ____ moon.
a) to the b) from the c) with the d) on the

24. He refuses to answer _______.
a) to question b) from question c) of question d) the question

25. She hopes ____ the first prize.
a) of win b) win c) to win d) at win

**Select the most appropriate phrase for the underlined segment in the given sentence.**

26. My Mother said, "you must <u>pay attention to</u> your studies".
a) Concentrate on b) Back up c) Act up to d) Ask for

27. You can achieve better results _______.
a) lest you should work hard
b) if you work hard
c) unless you work hard
d) if you do not work hard

**General English Questions on Adjectives correct the sentences if necessary**

28. John is elder than Kelly
a) John is elder than Kelly b) John is elder to Kelly
c) John is older than Kelly d) None of these

29. She is both kind, generous and wise.
a) She is kind, generous and wise
b) She is kind, generous, wise
c) She is both kind generous and wise
d) None of these

30. Kolkata is bigger than any city, in India.
a) Kolkata is bigger than any city in India
b) Kolkata is bigger than any other city in India
c) A and B
d) None of these

31. Where are my luggages?
a) Where are my luggages b) Where is my luggage
c) A and B d) None of these

**Fill in the blanks with the correct form of the Verb ($V_1$, $V_2$, $V_3$)**

32. He ____ (want) to become an IAS officer.
a) wants b) went c) wanted d) None of these

33. Maggie has ____ a new car.
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a) Blogging b) Resume c) Emails d) Memos

**46.** A selection process used by organization to do the job is ____.
a) Biodata b) Emails c) Job interviews d) Reporting

**Convert the following Active to Passive Voice**

**47.** The mason is building the wall.
a) The wall is being built by the mason
b) The wall is building by the mason
c) The wall is build by mason
d) The mason builds the wall



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**48.** Who did this?
a) Whom was this done?
b) By whom was thin done?
c) Whom done this?
d) Whom do this?

**49.** What is an example of a formal letter?
a) Inviting a friend
b) Advising a friend
c) Requesting for help
d) Job application

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a) enhanced vocabulary b) reduce memory
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**52.** Punctuation that expresses strong feeling in a sentence.
a) Question mark b) Exclamation mark c) Comma d) Full stop

**53.** _____ means the right use of putting in points or stops in writing.
a) Letter writing b) Resume c) Punctuation d) Essay

**54.** _____ is a formal style of writing elaborately an a topic.
a) Report writing b) Posture c) Gestures d) Eye contact

**Choose the kinds of sentence.**

**55.** Where do you live?
a) Declarative b) Interrogative c) Imperative d) Exclamatory

**56.** Convert the following direct speech to indirect : Rama said, "I am very busy now".
a) Rama said he was busy b) Rama said he is busy
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b) Information overload
c) Active listening
d) Pay attention

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**In the question, the sentences is split into four parts and named A, B, C and D. These four parts are not given in the proper order. Read the sentence and find out which of the four combinations is correct.**

**66.** get some peace (A)/he left home (B)/his parents could (C)/ in order that (D)
a) DCAB b) ADCB c) BDCA d) CBDA

**67.** try to use the camera (A)/carefully (B)/before you (C)/read the manual (D).
a) ACBD b) CADB c) BDCA d) DCAB

**68.** Shall have shifted (A)/of this month we (B)/by the end (C)/to owe new house (D).
a) CBAD b) ADBC c) BDCA d) DABC

**Change Active Voice and Passive Voice**

**69.** The peon opened the gate
a) The gate is opened by peon
b) The gate was opened by him
c) The gate is opened by him
d) The gate was opened by the peon

**70.** Come ____ the garden, Maud.
a) on b) into c) of d) with

**71.** Much water has run ____ the bridge since then.
a) beside b) from c) under d) behind

**Convert the Affirmative sentence into a negative sentence :**

**72.** He is greater than me
a) I am not so great as him b) He is not greater
c) I am not so great d) He is greater not than me

**73.** _____ represents the greatest pause and separation
a) The Dash b) The Full stop c) The Semicolon d) The Hyphen



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**74.** The Apostrophe is used.
a) To show the omission of a latter or letters
b) Genitive case of nouns
c) To form the plural
d) All of these

**75.** Wee Willie Winkie runs _____ the town.
a) through b) on c) under d) behind

**76.** ___ great Caesar : the immortal Shakespeare.
a) an b) a c) the d) None of these

**77.** Computers are used in many____ offices.
a) an b) a c) the d) None of these

**78.** An average length of sentence in a paragraph should be _____.
a) 15 to 20 words b) 25 to 30 words c) 2 to 5 words d) 5 to 10 words

**79.** Fill in the black : Neither she nor her sister _____ at the party.
a) was b) has c) were d) are

**80.** Choose the Verb in agreement with the subject : Neither you nor he ___ to blame .
a) have b) were c) are d) is

**81.** Choose the correct word for the given the sentence :
____ I were you I would accept the offer.
a) while b) if c) when d) as

Choose the most suitable determiner for the given sentence :
**82.** Is there ____ buttermilk in the cooler?
a) much b) little c) few d) any

**Choose the correct form of linker for the given sentence.**

**83.** She bought herself a map ____ she wouldn't get lost.
a) such as b) since c) so that d) therefore

**84.** How do you create coherence in your writing?
a) Connectors b) Plan c) Signpasts d) all of these

**85.** ____ help to increase participant's attention.
a) Group discussion b) Listening c) Reading d) Writing

**86.** In group discussion ideas might ____ from person to person.
a) same b) vary c) equal d) common

**87.** Group discussion help students develop critical thinking _____.
a) inability b) unable c) skills d) inaptitude

**88.** The full form of EMAIL is
a) Emessage b) Entermail c) Exchange d) Electronic mail



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**89.** An email address is often treated as basic and necessary part of
a) business b) education c) commerce d) all of these

**90.** _____ is a word for people who write an blogs.
a) Bloggers b) Loggers c) Journals d) Author

**91.** CV means _____
a) course b) curriculum vitae c) center d) customize

**92.** Why is body language important in an interview?
a) enthusiastic b) confident c) intent d) all of these

**93.** Identify the sentence – Kailash Satyarthi was awarded Nobel Prize for peace in 2014.
a) Declaratory b) Exclamatory c) Interrogatory d) Satisfactory

**94.** I _____ watching the match. (Auxiliary verb).
a) is b) are c) am d) be

**95.** Type of reports.
a) Information
b) Explanatory report
c) Annual report
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**96.** Information about a person's personal.
a) Index b) Bio data c) Data d) Details

**97.** Write the plural for sister-in-law.
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a) singular b) more c) many d) plural

**99.** Oral is a type of _____
a) Speech b) Communication c) Visual d) Written

**100.** Components of a formal letter.
a) The heading
b) Recipient address
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* * * * *



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# CBCS SCHEME

**21EGH28/22BI206**

USN | | | | | | | | | | |

**Question Paper Version : B**

## Second Semester B.Arch./B.Plan./B.Design Degree Examination, June/July 2026

## Professional Writing Skills in English

Time: 2 hrs. Max. Marks: 100

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the hundred questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
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---

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a) Speaking facts
b) Asking question
c) Speaking fast
d) Speaking with clarity

**82.** The main purpose of a report is to ___.
a) Record emotions
b) Analyze a problem
c) Persuade readers
d) Convey information

**83.** Listening is the most important skill to promote ___ communication.
a) Kind b) Active c) Bad d) Wrong



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**84.** Which among the following is not included in memo?
a) Issuing instructions
b) Making requests
c) Issuing suggestions
d) Invitations of wedding

**85.** If you begin a letter with "Dear Sir", your should end it with :
a) Yours faithfully b) Yours c) From d) To

**86.** Listening skills are also important to many business roles such as :
a) Managing
b) Mentoring
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**87.** Reading is a ____ skill.
a) Receptive b) Productive c) Both of these d) None of these

**88.** Communication is a non stop _____
a) Paper b) Process c) Programme d) Plan

**89.** ____ means communication without words.
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b) Written communication
c) Oral communication
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**Choose the appropriate phrases from the given options to fill in the blanks**

**90.** He wore a turban _____
a) made of silk b) made to silk c) made with silk d) made for silk

**91.** A man in great difficulties ____ me for help.
a) came from b) came to c) came on d) came in

**92.** Nothing can live ____ moon.
a) to the b) from the c) with the d) on the

**93.** He refuses to answer _____.
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**94.** She hopes ____ the first prize.
a) of win b) win c) to win d) at win

**Select the most appropriate phrase for the underlined segment in the given sentence**.

**95.** My Mother said, "you must <u>pay attention to</u> your studies".
a) Concentrate on b) Back up c) Act up to d) Ask for

**96.** You can achieve better results _____.
a) lest you should work hard
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d) if you do not work hard



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**97.** John is elder than Kelly
a) John is elder than Kelly
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**98.** She is both kind, generous and wise.
a) She is kind, generous and wise
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**99.** Kolkata is bigger than any city, in India.
a) Kolkata is bigger than any city in India
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**100.** Where are my luggages?
a) Where are my luggages
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CBCS SCHEME

21EGH28/22BI206

USN | | | | | | | | | |

Question Paper Version : C

# Second Semester B.Arch./B.Plan./B.Design Degree Examination, June/July 2026

# Professional Writing Skills in English

Time: 2 hrs. Max. Marks: 100

## INSTRUCTIONS TO THE CANDIDATES

1. Answer all the hundred questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
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**Fill in the blanks with the correct form of the Verb ($V_1$, $V_2$, $V_3$)**

1. He ____ (want) to become an IAS officer.
a) wants b) went c) wanted d) None of these

2. Maggie has ____ a new car.
a) buy b) bring c) brought d) None of these

3. I have _____ my homework just now.
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4. Raju ___ to market yesterday.
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5. Synonym of ability
a) cheerful b) shot c) repeat d) capability

6. Synonym of journey.
a) bright b) speedy c) travel d) role

7. Synonym of qualified.
a) eligible b) value c) skill d) expand

8. Antonym of accept.
a) lend b) borrow c) forfeit d) refuse



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a) exactly b) deny c) depart d) presence

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a) lazy b) afraid c) active d) exactly

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a) hold something down
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**Convert the following Active to Passive Voice**

**16.** The mason is building the wall.
a) The wall is being built by the mason
b) The wall is building by the mason
c) The wall is build by mason
d) The mason builds the wall

**17.** Who did this?
a) Whom was this done?
b) By whom was thin done?
c) Whom done this?
d) Whom do this?

**18.** What is an example of a formal letter?
a) Inviting a friend
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**19.** Importance of reading skills.
a) enhanced vocabulary b) reduce memory
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**20.** Which is an example of interpersonal communication?
a) face-to-face b) phone calls c) video conferences d) all of these



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**21.** Punctuation that expresses strong feeling in a sentence.
a) Question mark b) Exclamation mark c) Comma d) Full stop

**22.** _____ means the right use of putting in points or stops in writing.
a) Letter writing b) Resume c) Punctuation d) Essay

**23.** _____ is a formal style of writing elaborately an a topic.
a) Report writing b) Posture c) Gestures d) Eye contact

**Choose the kinds of sentence.**

**24.** Where do you live?
a) Declarative b) Interrogative c) Imperative d) Exclamatory

**25.** Convert the following direct speech to indirect : Rama said, "I am very busy now".
a) Rama said he was busy b) Rama said he is busy
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a) disinterest b) inactivity c) group discussion d) unthought fullness

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a) Planning b) Structure c) Review d) All of these

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b) Information overload
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d) Pay attention

**34.** Which of these does not come under reports?
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**In the question, the sentences is split into four parts and named A, B, C and D. These four parts are not given in the proper order. Read the sentence and find out which of the four combinations is correct.**

**35.** get some peace (A)/he left home (B)/his parents could (C)/ in order that (D)
a) DCAB b) ADCB c) BDCA d) CBDA

**36.** try to use the camera (A)/carefully (B)/before you (C)/read the manual (D).
a) ACBD b) CADB c) BDCA d) DCAB

**37.** Shall have shifted (A)/of this month we (B)/by the end (C)/to owe new house (D).
a) CBAD b) ADBC c) BDCA d) DABC

**Change Active Voice and Passive Voice**

**38.** The peon opened the gate
a) The gate is opened by peon
b) The gate was opened by him
c) The gate is opened by him
d) The gate was opened by the peon

**39.** Come ____ the garden, Maud.
a) on b) into c) of d) with

**40.** Much water has run ____ the bridge since then.
a) beside b) from c) under d) behind

**Convert the Affirmative sentence into a negative sentence :**

**41.** He is greater than me
a) I am not so great as him b) He is not greater
c) I am not so great d) He is greater not than me

**42.** _____ represents the greatest pause and separation
a) The Dash b) The Full stop c) The Semicolon d) The Hyphen

**43.** The Apostrophe is used.
a) To show the omission of a latter or letters
b) Genitive case of nouns
c) To form the plural
d) All of these

**44.** Wee Willie Winkie runs _____ the town.
a) through b) on c) under d) behind

**45.** ___ great Caesar : the immortal Shakespeare.
a) an b) a c) the d) None of these

**46.** Computers are used in many ____ offices.
a) an b) a c) the d) None of these



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**47.** An average length of sentence in a paragraph should be _____.
a) 15 to 20 words b) 25 to 30 words c) 2 to 5 words d) 5 to 10 words

**48.** Fill in the black : Neither she nor her sister _____ at the party.
a) was b) has c) were d) are

**49.** Choose the Verb in agreement with the subject : Neither you nor he ___ to blame .
a) have b) were c) are d) is

**50.** Choose the correct word for the given the sentence :
____ I were you I would accept the offer.
a) while b) if c) when d) as

**51.** Choose the most suitable determiner for the given sentence :
Is there ____ buttermilk in the cooler?
a) much b) little c) few d) any

**Choose the correct form of linker for the given sentence.**

**52.** She bought herself a map ____ she wouldn't get lost.
a) such as b) since c) so that d) therefore

**53.** How do you create coherence in your writing?
a) Connectors b) Plan c) Signpasts d) all of these

**54.** ____ help to increase participant's attention.
a) Group discussion b) Listening c) Reading d) Writing

**55.** In group discussion ideas might ____ from person to person.
a) same b) vary c) equal d) common

**56.** Group discussion help students develop critical thinking _____.
a) inability b) unable c) skills d) inaptitude

**57.** The full form of EMAIL is
a) Emessage b) Entermail c) Exchange d) Electronic mail

**58.** An email address is often treated as basic and necessary part of
a) business b) education c) commerce d) all of these

**59.** _____ is a word for people who write an blogs.
a) Bloggers b) Loggers c) Journals d) Author

**60.** CV means _____
a) course b) curriculum vitae c) center d) customize

**61.** Why is body language important in an interview?
a) enthusiastic b) confident c) intent d) all of these

**62.** Identify the sentence – Kailash Satyarthi was awarded Nobel Prize for peace in 2014.
a) Declaratory b) Exclamatory c) Interrogatory d) Satisfactory



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**63.** I _____ watching the match. (Auxiliary verb).
a) is b) are c) am d) be

**64.** Type of reports.
a) Information
b) Explanatory report
c) Annual report
d) All of these

**65.** Information about a person's personal.
a) Index b) Bio data c) Data d) Details

**66.** Write the plural for sister-in-law.
a) Sister-in-laws b) Sister-in's-law c) Sister-in-law d) None of these

**67.** Denoting or referring to just one person or thing.
a) singular b) more c) many d) plural

**68.** Oral is a type of _____
a) Speech b) Communication c) Visual d) Written

**69.** Components of a formal letter.
a) The heading
b) Recipient address
c) The salutation
d) All of these

**Choose the appropriate phrases from the given options to fill in the blanks**

**70.** He wore a turban _____
a) made of silk b) made to silk c) made with silk d) made for silk

**71.** A man in great difficulties ____ me for help.
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**Select the most appropriate phrase for the underlined segment in the given sentence**.

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a) Concentrate on b) Back up c) Act up to d) Ask for

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**76.** You can achieve better results _______.
a) lest you should work hard
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**General English Questions on Adjectives correct the sentences if necessary**

**77.** John is elder than Kelly
a) John is elder than Kelly
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d) None of these

**80.** Where are my luggages?
a) Where are my luggages
b) Where is my luggage
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**General English Grammar : Select the correct option.**

**81.** The train ____ as fast as the bus.
a) went b) running c) moves d) going

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**85.** Resume means ____ for French.
a) Skills b) education c) summary d) course of life

**86.** I ___ a letter to the principal yesterday.
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**87.** How is good technical writing achieved?
a) Naturally b) By practice c) Listening d) Speaking



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**88.** How do you start a formal letter?
a) By the date b) Sender's address c) Subject d) Salutation

**89.** To send a received mail to another person, you need to ___ the message.
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**90.** Which of these should be avoided in a précis?
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CBCS SCHEME

**21EGH28/22BI206**

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**Question Paper Version : D**

**Second Semester B.Arch./B.Plan./B.Design Degree Examination, June/July 2026**

# Professional Writing Skills in English

Time: 2 hrs. Max. Marks: 100

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a) Blogging b) Resume c) Emails d) Memos

**65.** A selection process used by organization to do the job is ____.
a) Biodata b) Emails c) Job interviews d) Reporting

**In the question, the sentences is split into four parts and named A, B, C and D. These four parts are not given in the proper order. Read the sentence and find out which of the four combinations is correct**.

**66.** get some peace (A)/he left home (B)/his parents could (C)/ in order that (D)
a) DCAB b) ADCB c) BDCA d) CBDA

**67.** try to use the camera (A)/carefully (B)/before you (C)/read the manual (D).
a) ACBD b) CADB c) BDCA d) DCAB

**68.** Shall have shifted (A)/of this month we (B)/by the end (C)/to owe new house (D).
a) CBAD b) ADBC c) BDCA d) DABC

**Change Active Voice and Passive Voice**

**69.** The peon opened the gate
a) The gate is opened by peon
b) The gate was opened by him
c) The gate is opened by him
d) The gate was opened by the peon

**70.** Come ____ the garden, Maud.
a) on b) into c) of d) with

**71.** Much water has run ____ the bridge since then.
a) beside b) from c) under d) behind

**Convert the Affirmative sentence into a negative sentence :**

**72.** He is greater than me
a) I am not so great as him b) He is not greater
c) I am not so great d) He is greater not than me

**73.** _____ represents the greatest pause and separation
a) The Dash b) The Full stop c) The Semicolon d) The Hyphen



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**74.** The Apostrophe is used.
a) To show the omission of a latter or letters
b) Genitive case of nouns
c) To form the plural
d) All of these

**75.** Wee Willie Winkie runs _____ the town.
a) through b) on c) under d) behind

**76.** ___ great Caesar : the immortal Shakespeare.
a) an b) a c) the d) None of these

**77.** Computers are used in many____ offices.
a) an b) a c) the d) None of these

**78.** An average length of sentence in a paragraph should be _____.
a) 15 to 20 words b) 25 to 30 words c) 2 to 5 words d) 5 to 10 words

**79.** Fill in the black : Neither she nor her sister _____ at the party.
a) was b) has c) were d) are

**80.** Choose the Verb in agreement with the subject : Neither you nor he ___ to blame .
a) have b) were c) are d) is

**81.** Choose the correct word for the given the sentence :
____ I were you I would accept the offer.
a) while b) if c) when d) as

**82.** Choose the most suitable determiner for the given sentence :
Is there ____ buttermilk in the cooler?
a) much b) little c) few d) any

**Choose the correct form of linker for the given sentence.**

**83.** She bought herself a map ____ she wouldn't get lost.
a) such as b) since c) so that d) therefore

**84.** How do you create coherence in your writing?
a) Connectors b) Plan c) Signpasts d) all of these

**85.** ____ help to increase participant's attention.
a) Group discussion b) Listening c) Reading d) Writing

**86.** In group discussion ideas might ____ from person to person.
a) same b) vary c) equal d) common

**87.** Group discussion help students develop critical thinking _____.
a) inability b) unable c) skills d) inaptitude

**88.** The full form of EMAIL is
a) Emessage b) Entermail c) Exchange d) Electronic mail



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**89.** An email address is often treated as basic and necessary part of
a) business b) education c) commerce d) all of these

**90.** ______ is a word for people who write an blogs.
a) Bloggers b) Loggers c) Journals d) Author

**91.** CV means ______
a) course b) curriculum vitae c) center d) customize

**92.** Why is body language important in an interview?
a) enthusiastic b) confident c) intent d) all of these

**93.** Identify the sentence – Kailash Satyarthi was awarded Nobel Prize for peace in 2014.
a) Declaratory b) Exclamatory c) Interrogatory d) Satisfactory

**94.** I _____ watching the match. (Auxiliary verb).
a) is b) are c) am d) be

**95.** Type of reports.
a) Information
b) Explanatory report
c) Annual report
d) All of these

**96.** Information about a person's personal.
a) Index b) Bio data c) Data d) Details

**97.** Write the plural for sister-in-law.
a) Sister-in-laws b) Sister-in's-law c) Sister-in-law d) None of these

**98.** Denoting or referring to just one person or thing.
a) singular b) more c) many d) plural

**99.** Oral is a type of _____
a) Speech b) Communication c) Visual d) Written

**100.** Components of a formal letter.
a) The heading
b) Recipient address
c) The salutation
d) All of these

* * * * *



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CBCS SCHEME

USN | | | | | | | | | | |

21ENG26

# Second Semester B.Arch. Degree Examination, June/July 2026
## Building Structures – I

Time: 3 hrs. Max. Marks: 100

***Note: Answer any FIVE full questions, choosing one full question from each module.***

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

### Module-1

**1** Write structural properties of steel, concrete, wood and glass. **(20 Marks)**

**OR**

**2** a. What are different types of loads building being subjected to as per IS875 Part I and II? **(10 Marks)**

b. Explain stress strain relationship of steel and aluminium with graph. **(10 Marks)**

### Module-2

**3** a. Brief classification of force system and characteristics of force. **(10 Marks)**

b. Explain the following :
i) Resultant of force
ii) Composition of force
iii) Principle of transmissibility
iv) Moment of force. **(10 Marks)**

**OR**

**4** a. The resultant of four forces which are acting at a point 0 as shown in Fig.Q.4(a) is along Y-axis the magnitude of forces $F_1$, $F_3$ and $F_4$ are 10 kN, 20 kN and 40 kN respectively. Find the magnitude and direction of force $F_2$ if resultant is 72 kN. **(10 Marks)**

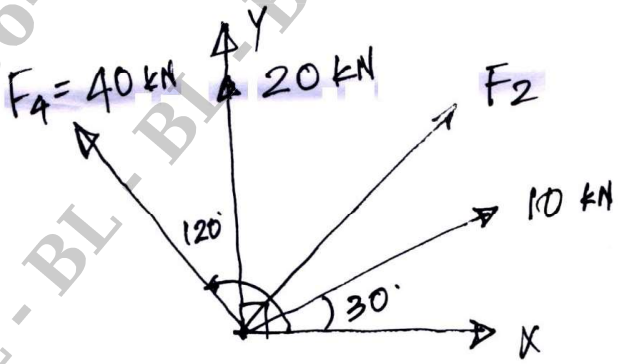



Fig.Q.4(a)



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b. Four coplanar forces are acting at a point determine the resultant in magnitude and direction analytically Fig.Q.4(b).

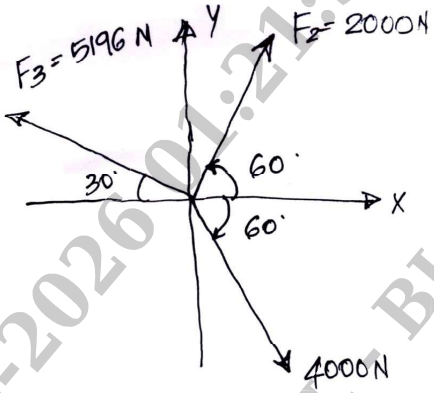



Fig.Q.4(b)

**(10 Marks)**

## Module-3

**5** a. What are different types of beams and supports? **(10 Marks)**

b. A simply supported beam AB of span 6m carries point loads of 3 kN and 6kN at a distance of 2m and 4m from left end A as shown in Fig.Q.5(b). Find the reaction at A and B analytically.

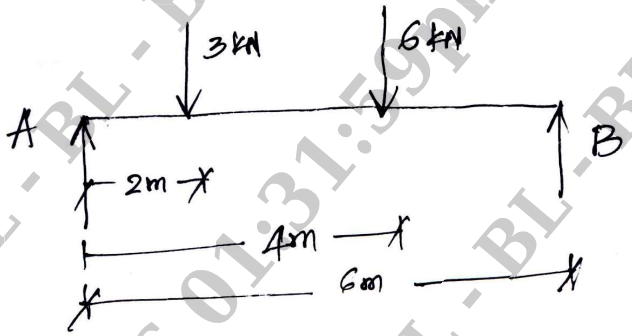



Fig.Q.5(b)

**(10 Marks)**

**OR**

**6** The Home roof truss shown in Fig.Q.6 carries the given loads. The wind loads are perpendicular to the inclined members. Determine the magnitude of the resultant. Its inclination with the horizontal and where it intersects AB.

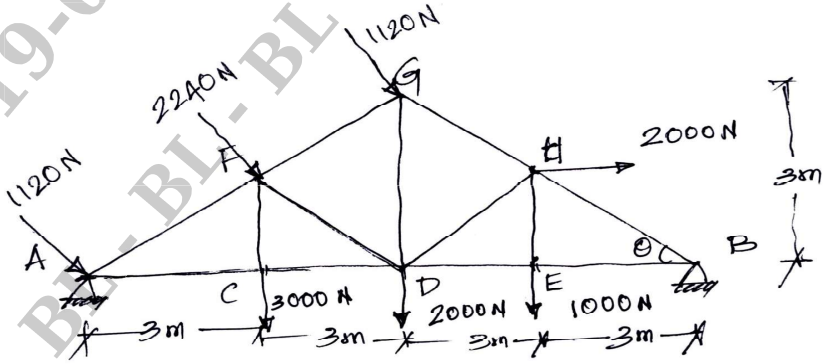



Fig.Q.6

**(20 Marks)**



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## Module-4

**7** a. Derive Parallel Axis-Theorem. **(10 Marks)**

b. Derive Perpendicular Axis Theorem. **(10 Marks)**

**OR**

**8** Find moment of inertia for Fig.Q.8 with respect to x-axis. **(20 Marks)**

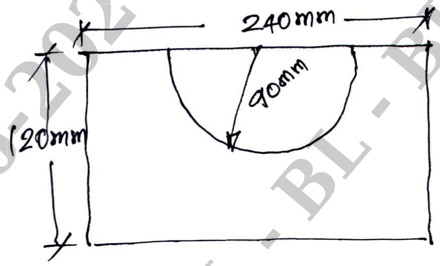



Fig.Q.8

## Module-5

**9** a. What are different types of trusses? **(10 Marks)**

b. What are the assumptions made in analysis of trusses? **(10 Marks)**

**OR**

**10** Find forces in all members of the truss shown in Fig.Q.10 by method of joints. **(20 Marks)**

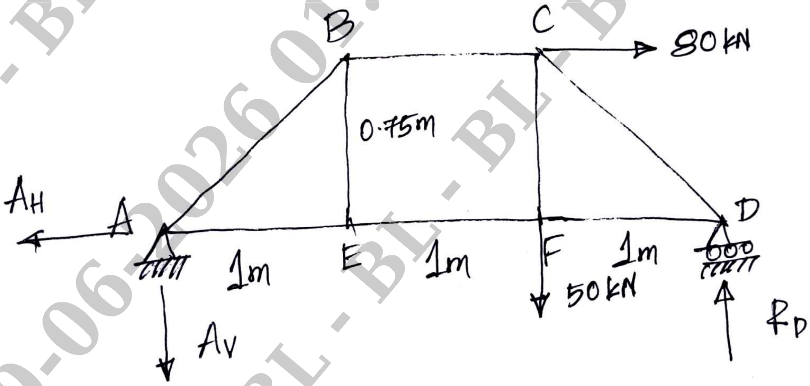



Fig.Q.10

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CBCS SCHEME

21IDT19

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Question Paper Version : A

# First Semester B.Arch./B.Planning Degree Examination, June / July 2026
## Innovation and Design Thinking

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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1. Design thinking is best described as:
   a) A method facilitated only by designers
   b) A process for creative problem solving
   c) A traditional engineering approach
   d) A linear management process.
2. The first step in the Design Thinking process is:
   a) Define b) Ideate c) Empathize d) Test
3. The final step in the Design Thinking process is:
   a) Ideate b) Prototype c) Define d) Test
4. Which stage focuses on understanding User's needs and motivations?
   a) Define b) Empathize c) Ideate d) Prototype
5. Interviewing users mainly belongs to which stage?
   a) Test b) Ideate c) Empathize d) Define
6. Design Thinking is a:
   a) Linear Process b) Non-linear Process
   c) Regid Process d) Fixed Sequence Method



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**7.** Which organization is most associated with Design Thinking?

a) IKEA  b) IDEO  c) Google  d) Microsoft

**8.** Collecting ________________ is an important part of testing a Prototype.

a) Emails  b) Feedback  c) Money  d) Pictures

**9.** The Purpose of proto typing is to:

a) Finalize the product

b) Test and Validate Ideas

c) Increase Production

d) Avoid user feedback

**10.** Empathy helps designers to:

a) Predict market trends

b) Set aside assumptions

c) Reduce Cost

d) Improve aesthetics only

**11.** Which of the following is NOT a principle of Design Thinking?

a) Desirability  b) Feasibility  c) Viability  d) Credibility

**12.** Which thinking helps generate multiple ideas?

a) Convergent thinking

b) Logical thinking

c) Divergent thinking

d) Critical thinking

**13.** Narrowing down ideas to a final solution is called:

a) Divergent thinking  b) Creative thinking

c) Convergent thinking  d) Abstract thinking

**14.** A Point of View (PoV) statement is completed during:

a) Empathize  b) Define  c) Ideate  d) Test



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**15.** MVP stands for:

a) Most Valuable Product

b) Minimum Viable Product

c) Maximum Viable Product

d) Market Viable Product

**16.** The goal of MVP is to:

a) Use maximum resources

b) Accelerate learning

c) Avoid testing

d) Finalize the design

**17.** Which is NOT a good interview strategy?

a) Asking follow-up questions

b) Encouraging short answers only

c) Letting users share Experiences

d) Uncovering hidden needs

**18.** User personas are created during:

a) Discover stage b) Design stage c) Test stage d) Delivery stage

**19.** Journey mapping is also known as:

a) Feedback mapping b) Experience mapping

c) Process mapping d) Service mapping

**20.** Mind Maps are used to:

a) Test ideas

b) Structure and Visualize ideas

c) Finalize designs

d) Evaluate users

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**21.** A Prototype is:

a) A finished product

b) A theoretical idea

c) A simple experimental model

d) A marketing tool

**22.** Which phase involves brain Storming?

a) Define b) Empathize c) Ideate d) Test

**23.** Design thinking primarily focuses on:

a) Technology

b) Human-Centric Solutions

c) Profit maximization

d) Automation

**24.** The three " I " s of Design thinking include all except:

a) Inspiration b) Ideation c) Implementation d) Interest

**25.** Which helps visualize and handle design concepts?

a) Empathize b) Ideate c) Prototype d) Define

**26.** Testing phase mainly helps to:

a) Reject users

b) Identity what works and what doesn't

c) Finalize budget

d) Stop iteration

**27.** Design thinking can be applied to:

a) Products only b) Services only c) Experience only d) All of these

**28.** Which tool helps identity Unarticulated user needs?

a) Storytelling b) Experience mapping

c) Mind mapping d) Rapid Concept development



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**29.** IDEO's first expression of Design Thinking was called:

a) Deep Design b) Deep Dive c) Design sprint d) Idea lab

**30.** Design thinking follows:

a) Waterfall model b) Agile methodology c) Rigid framework d) Fixed hierarchy

**31.** A Hypothesis is:

a) A proven fact

b) A guess without research

c) A testable assumption

d) A final conclusion

**32.** Case study is:

a) Only theoretical analysis

b) An empirical inquiry

c) A marketing strategy

d) A design tool only

**33.** Human – centric design means:

a) Design for profit

b) Design for user's needs

c) Design for technology

d) Design for aesthetics

**34.** Design brief is initially provided by:

a) Designer b) Client c) User d) Developer

**35.** Prototypes should be tested:

a) Only within the team

b) Only by Experts

c) With real users

d) Only after final design



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**36.** Value chain analysis helps to:

a) Reduce Cost only

b) Create new offerings

c) Eliminate users

d) Improve aesthetics

**37.** Which is NOT a tool of Design Thinking?

a) Prototyping b) Co-Creation c) Mind - Mapping d) Online Marketing

**38.** Design thinking mainly helps in:

a) Innovation b) Data analytics c) Accounting d) Legal compliance

**39.** Alterations after testing phase are:

a) Not allowed b) Encouraged c) Optional d) Avoided

**40.** Design thinking problems usually have:

a) One correct answer

b) No user involvement

c) Multiple possible solutions

d) Fixed constraints only

**41.** Which phase includes integration?

a) Define b) Delivery c) Empathize d) Research

**42.** Empathy involves:

a) Observation only b) Listening only c) Engagement only d) All of these

**43.** Ux design mainly focuses on:

a) Look and feel only

b) User experience and interaction

c) Backend Systems

d) Manufacturing

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**44.** Which company avoided bankruptcy using Design Thinking:

a) PepsiCo b) Airbnb c) Nokia d) Yahoo

**45.** Design thinking encourages failure because it:

a) Increases cost b) Slows innovation c) Supports learning d) Reduces Creativity

**46.** Which stage converts ideas into tangible form?

a) Ideate b) Empathize c) Prototype d) Define

**47.** Design sensibilities relate to:

a) Technical drawings

b) User Emotions and Comfort

c) Cost estimation

d) Legal standards

**48.** Which of the following best defines empathy?

a) Seeing with your own eyes

b) Feeling other's experiences

c) Observing from distance

d) Logical analysis

**49.** Design Thinking works best with:

a) Individual effort b) Collaborative teamwork

c) Top-down control d) Automation

**50.** The ultimate goal of Design Thinking is to design better:

a) Products b) Services c) Experiences d) All of these

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CBCS SCHEME

21KBK37

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Question Paper Version : A

# Third Semester B.Arch./B.Planning Degree Examination, June/July 2026
## Balake Kannada

Time: 1 hrs. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the Fifty questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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1. Avanu ____ maga?
   a) yenu b) yaara c) hega d) yake

2. ___ hudugi.
   a) yake b) avanu c) naavu d) avalu

3. ____ hesaru enu?
   a) nimma b) alli c) yake d) avanu

4. She = ____
   a) avanu b) avaru c) naanu d) avalu

5. Father : ___
   a) amma b) tamma c) akka d) appa

6. This = ____
   a) adu b) illi c) alli d) idu

7. Tangi = _____
   a) mother b) brother c) sister d) father

8. Ivanu namma _____
   a) anna b) akka c) amma d) tangi

9. maga = _____
   a) brother b) friend c) son d) daughter

10. Yaaru
    a) How b) Who c) What d) This



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**11.** Mara = ____
a) house b) tree c) car d) road

**12.** Dhanyavadagalu = _____
a) thank you b) good morning c) nothing d) sleep

**13.** **Change the word as per the model.**
magalu + a = magala → avanu + a = ____
a) avanina b) avala c) avana d) avanu

**14.** **Change the word as per the model.**
guru + a = guruvina → maga + a = maguvina → hasu + a = _____
a) hasuvina b) hoovina c) hasuna d) hasua

**15.** alli means _____
a) here b) top c) bottom d) there

**16.** What is the meaning of the word : Pustaka?
a) paper b) pen c) book d) house

**17.** **Change as per the model :**
naanu – nannadu, avanu – ______
a) avaladu b) avaradu c) yaradu d) avanadu

**18.** **Write an per the model** :
avalu – avalige : avanu –
a) avalu b) avanige c) avarige d) avalige

**19.** **Translate to Kannada**
'Who are you'?
a) ninna hesaru enu? b) uta aitha? c) neenu yaaru? d) enu beku?

**20.** **Change the word form as per model** :
nudi → nudiyiri, tinnu → _______
a) tindra b) tinniri c) tegeyiri d) nudiyiri

**21.** **Write as per the example :**
taayi – amma, tande – ______
a) tamma b) akka c) appa d) anna

**22.** Kivi = ____
a) ear b) year c) hear d) dear



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**23.** **Write as per the model :**

idu = idara,  adu = _____

a) adu  b) adannu  c) adara  d) adakke

**24.** **Translate the sentence to Kannada**

'What is that'?

a) adu enu?  b) adu yaaru?  c) adu elli?  d) idu enu?

**25.** 'Kappu' means _____

a) cup  b) black  c) white  d) red

**26.** In Kannada 'don't go' means _____

a) hogabeda  b) barabeda  c) hogu  d) baa

**27.** 'niinu elli iddiya? mean _____

a) Where are you?  b) Who are you?
c) What are you?  d) When are you?

**28.** Middle in Kannda means _____

a) swanta  b) needle  c) naduve  d) modalu

**29.** **Opt the correct word**

adu _____ ruumu?

a) yavaga  b) elli  c) illi  d) yaara

**30.** Library means _____

a) Railu  b) Mane  c) Pustaka  d) Granthalaya

**31.** **Write in Present Tense**.

'Naanu kaalejige hogidde'.

a) hogutiddene  b) hoguvenu  c) hogu  d) hoguttene

**32.** In Kannada, Mathematics means _____

a) haadu  b) ganita  c) vignaana  d) pustaka

**33.** Karnataka Rajadhani yavudu?

a) Mysuru  b) Hubballi  c) Bengaluru  d) Chitradurga

**34.** Interrogative form of huDugi is ______.

a) hudugiya?  b) huduginaa?  c) hudugi?  d) huduga?

**35.** Good night in Kannada means ______

a) shubharaatri  b) susvagata  c) namaskara  d) olleya

**36.** In Kannada, ten means ____

a) ondu  b) eradu  c) nalku  d) hattu



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**37.** **Translate to Kannada** :

Small = _____

a) uuru b) chikka c) hosa d) nillu

**38.** KaDime ____

a) walk b) keep c) less d) great

**39.** **Translate to Kannada** :

'come fast' _____

a) hogabeda b) barabeDa c) bega baa d) malagu

**40.** 'eat' in Kannada means ______.

a) eradu b) nillu c) bare d) tinnu

**41.** Select the animal in given options

a) aane b) pustaka c) kallu d) kaalu

**42.** Nimma maneya banna ______

a) karu b) kempu c) kaalu d) mane

**43.** name = ______.

a) kate b) hesaru c) mara d) nanu

**44.** naataka =

a) tangi b) brother c) drama d) promise

**45.** **Select the suitable Kannada word.**

chikka – small ; hosa – ______

a) new b) want c) horse d) name

**46.** **Fill in the blank.**

Chenna + ____ = Chennagi

a) gi b) i c) aagi d) nagi

**47.** Write Kannada word, 'adu ____ ruumu'? (Which)

a) elli b) hege c) alli d) yaava

**48.** School = ____.

a) mane b) Shaale c) room d) pakka

**49.** tarakaari = ______.

a) mobile b) scale c) vegetables d) paper

**50.** Select the plural of 'adu'

a) avu b) aadu c) anu d) asu

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CBCS SCHEME

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21KSK37

Question Paper Version : A

**Third Semester B.Arch/B.Planning Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

Time: 1 hrs. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. 'ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ' ಲೇಖನದ ಲೇಖಕರು ಯಾರು?

   a) ವಸುಧೇಂದ್ರ  b) ಕಂಬಾರ  c) ಕುವೆಂಪು  d) ಹಂಪನಾಗರಾಜಯ್ಯ

2. 'ಕಬ್ಬಿಗರ ಕಾವ್ಯ' ಕೃತಿಯ ಕರ್ತೃ ಯಾರು?

   a) ಆಂಡಯ್ಯ  b) ಪಂಪ  c) ಹಂಪನಾ  d) ನೇಮಿಚಂದ್ರ

3. ಧರ್ಮ ಸಹಿಷ್ಣುತೆ ಬಗ್ಗೆ ಹೇಳುವ ಶಾಸನ ಯಾವುದು?

   a) ತಾಳಗುಂದ ಶಾಸನ  b) ಬೇಲೂರು ಶಾಸನ  c) ಬದಾಮಿ ಶಾಸನ  d) ಯಾವುದು ಅಲ್ಲ

4. 'ಕಾಳಗ' ಪದದ ಅರ್ಥ?

   a) ಸರ್ಪ  b) ಭರ್ತ  c) ಯುದ್ಧ  d) ಶತೃ

5. ಕವಿರಾಜಮಾರ್ಗ ಕೃತಿಯ ಕಾಲಘಟ್ಟ ಯಾವುದು?

   a) 6 ನೇ ಶತಮಾನ  b) 9 ನೇ ಶತಮಾನ  c) 12 ನೇ ಶತಮಾನ  d) 15 ನೇ ಶತಮಾನ



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6. 'ಇಗೋ ಕನ್ನಡ' ಗ್ರಂಥದ ಲೇಖಕರು ಯಾರು?
a) ಹಂಪನಾಗರಾಜಯ್ಯ b) ಪಂಪ c) ಜಿ. ವೆಂಕಟಸುಬ್ಬಯ್ಯ d) ದ. ರಾ. ಬೇಂದ್ರೆ

7. ವಿದ್ಯಾವರ್ಧಕ ಸಂಘ ಎಲ್ಲಿ ಸ್ಥಾಪನೆಯಾಯಿತು?
a) ಮೈಸೂರು b) ಧಾರವಾಡ c) ಬೆಂಗಳೂರು d) ಬಳ್ಳಾರಿ

8. ಕರ್ನಾಟಕ ರಾಜ್ಯದ ಮೊದಲ ಹೆಸರು ಯಾವುದು?
a) ಧಾರವಾಡ b) ಉತ್ತರ ಕನ್ನಡ c) ಬೆಂಗಳೂರು d) ಮೈಸೂರು

9. ಕರ್ನಾಟಕ ಏಕೀಕರಣದ ಉದ್ದಕ್ಕೂ ಕಾಣುವ ಹೆಸರು ಯಾವುದು?
a) ರಾ.ಹ.ದೇಶಪಾಂಡೆ b) ಶಿವರಾಮ ಕಾರಂತ
c) ಆಲೂರು ವೆಂಕಟರಾಯರು d) ಶ್ರೀರಂಗರು

10. ಜಗತ್ತಿನಲ್ಲಿ ಹೆಚ್ಚು ಜನರು ಮಾತನಾಡುವ ಭಾಷೆಗಳಲ್ಲಿ ಕನ್ನಡಕ್ಕೆ ಎಷ್ಟನೇ ಸ್ಥಾನವಿದೆ?
a) 20 ನೇ ಸ್ಥಾನ b) 18 ನೇ ಸ್ಥಾನ c) 22 ನೇ ಸ್ಥಾನ d) 29 ನೇ ಸ್ಥಾನ

11. ಕನ್ನಡ ಯಾವ ಲಿಪಿಯಿಂದ ರೂಪುಗೊಂಡಿದೆ?
a) ಬ್ರಾಹ್ಮಿಲಿಪಿ b) ತಾಳೆಗರಿ c) ಹಸ್ತ ಪ್ರತಿ d) ಯಾವುದು ಅಲ್ಲ

12. ಕರ್ನಾಟಕ ಎಂದು ನಾಮಕರಣವಾದ ವರ್ಷ ಯಾವುದು?
a) 1956 b) 1948 c) 1973 d) 1982

13. ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಲಿಪಿಗಳ ರಾಣಿ ಎಂದು ಕರೆದವರು ಯಾರು?
a) ವಿನೋಬಾ ಭಾವೆ b) ಕುವೆಂಪು c) ಗೋವಿಂದ ಪೈ d) ಪಂಪ

14. ಕನ್ನಡದ ಮೊಟ್ಟ ಮೊದಲ ಶಾಸನ ಯಾವುದು?
a) ಐಹೊಳೆ ಶಾಸನ b) ಹಲ್ಮಿಡಿ ಶಾಸನ c) ಮಾಸ್ಕಿ ಶಾಸನ d) ಬದಾಮಿ ಶಾಸನ

15. ವಚನ ಸಾಹಿತ್ಯದ ಕಾಲಘಟ್ಟ ಯಾವುದು?
a) 8 ನೇ ಶತಮಾನ b) 10 ನೇ ಶತಮಾನ
c) 12 ನೇ ಶತಮಾನ d) 15 ನೇ ಶತಮಾನ

16. ಜೇಡರ ದಾಸಿಮಯ್ಯನ ಕಾಯಕ ಯಾವುದು?
a) ಅಕ್ಕಿಆಯುವುದು b) ಕುಂಬಾರಿಕೆ c) ನೇಯ್ಗೆ d) ಚಮ್ಮಾರಿಕೆ



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17. ಅಲ್ಲಮ ಪ್ರಭುವಿನ ಅಂಕಿತನಾಮ ಯಾವುದು?
a) ಗುಹೇಶ್ವರ b) ರಾಮನಾಥ c) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ d) ಕೂಡಲಸಂಗಮದೇವ

18. ಕಳ್ಳಗಂಜಿ ____ ಹೊಕ್ಕಡೆ ಹುಲಿ ತಿಂಬುದ ಮಾಬುದೇ?
a) ಹುತ್ತ b) ಮನೆ c) ಕಾಡು d) ಸಮುದ್ರ

19. ಅನುಭವ ಮಂಟಪದ ಅಧ್ಯಕ್ಷರು ಯಾರು?
a) ಬಸವಣ್ಣ b) ದಾಸಿಮಯ್ಯ c) ಮಾರಯ್ಯ d) ಅಲ್ಲಮಪ್ರಭು

20. ಕಳವೆ - ಈ ಪದದ ಅರ್ಥವೇನು?
a) ರಾಗಿ b) ಭತ್ತ c) ಜೋಳ d) ಕಾಳು

21. ಕನ್ನಡದ ಮೊದಲ ಕವಯತ್ರಿ ಯಾರು?
a) ಅಕ್ಕಮಹಾದೇವಿ b) ದುಗ್ಗಳೆ c) ಲಕ್ಕಮ್ಮ d) ಸುಮತಿ

22. ಕುರುಡ ___ ಕಣಲರಿಯದೆ ಕನ್ನಡಿಯ ಬಯ್ವನು.
a) ಕಾಗೆ b) ಗೂಗೆ c) ರವಿ d) ಕಣ್ಣು

23. ಮಾರಯ್ಯನ ಅಂಕಿತನಾಮ ಯಾವುದು?
a) ಗುಹೇಶ್ವರ b) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ c) ಅಮರೇಶ್ವರಲಿಂಗ d) ರಾಮನಾಥ

24. ಪುರಂದರದಾಸರ ಅಂಕಿತನಾಮ ಯಾವುದು?
a) ಮಲ್ಲಿಕಾರ್ಜುನ b) ಕಾಗಿನೆಲೆಯಾದಿಕೇಶವರಾಯ
c) ಅಮುಗೇಶ್ವರ d) ಪುರಂದರ ವಿಠಲ

25. ಹೃದಯದ ___ ತೊಳೆಯಲಾರದೆ ವ್ಯರ್ಥ
a) ಮಲ b) ಕೊಳೆ c) ಭಕ್ತಿ d) ಭಾವ

26. ಪುರಂದರದಾಸರ ಜನ್ಮಸ್ಥಳ ಯಾವುದು?
a) ಕಾಗಿನೆಲೆ b) ಬಳ್ಳಿಗಾವೆ c) ಪುರಂದರಗಡ d) ಉಡುತಡಿ

27. 'ತಲ್ಲಣಿಸದಿರು ಕಂಡ್ಯ ತಾಳು ಮನವೆ' - ಈ ಕೀರ್ತನೆ ಯಾರದು?
a) ಹರಿದಾಸರು b) ವ್ಯಾಸರಾಯ
c) ಪುರಂದರ ದಾಸರು d) ಕನಕದಾಸರು



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28. ಕನಕದಾಸರ ಜನ್ಮಸ್ಥಳ ಯಾವುದು?

a) ಶಿಶುನಾಳ b) ಬಳ್ಳಿಗಾವೆ c) ಬಾಗೇವಾಡಿ d) ಬಾಡ

29. ಕುಣಬಿ ಹೆಂಗಸರು ____

a) ಹಾಡುವುದಿಲ್ಲ

b) ಕುಣಿಯುವುದಿಲ್ಲ

c) ಸುಂದರಾಗಿಲ್ಲ

d) ಮೃದುಸ್ವಭಾವದವರು

30. ಪವಳದ ಲತೆಗೆ ____ ಇಟ್ಟವರು ಯಾರು?

a) ಕಪ್ಪು b) ಹಸಿರು

c) ಕೆಂಪು d) ಚಿತ್ರ

31. ಶಿಶುನಾಳ ಶರೀಫರ ಹುಟ್ಟೂರು ಯಾವುದು?

a) ಕದಳಿ b) ಶಶಿವಿನಹಾಳ

c) ಬಾಡ d) ಕಾಗಿನೆಲೆ

32. ವಸುಧೆ ___ ಈ ಪದದ ಸಮಾನಾರ್ಥಕ ಪದ?

a) ಭೂಮಿ b) ಕಲ್ಲು

c) ಆಕಾಶ d) ಸಮುದ್ರ

33. 'ಮಂಕುತಿಮ್ಮನ ಕಗ್ಗ' ಕೃತಿಯ ರಚನಾಕಾರರು ಯಾರು?

a) ಮಾಸ್ತಿ b) ಕುವೆಂಪು

c) ಡಿ.ವಿ.ಜಿ d) ಪು.ತಿ.ನ

34. ನಗುವು ಸಹಜದ ಧರ್ಮ ; ನಗಿಸುವುದು ____

a) ಪರಧರ್ಮ b) ಅಧರ್ಮ c) ಕುಲಧರ್ಮ d) ವೀರಧರ್ಮ

35. ____ ವಾಕ್ಯದೊಡನೆ ವಿಜ್ಞಾನ ಕಲೆ ಮೇಳವಿಸೆ ಜಸವು ಜನ ಜೀವನಕ್ಕೆ

a) ಗುರು b) ಋಷಿ c) ವಿಜ್ಞಾನಿ d) ಕವಿ

36. 'ಕುರುಡು ಕಾಂಚಾಣ' ಪದ್ಯವನ್ನು ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?

a) ನಾಕುತಂತಿ b) ನಾದಲೀಲೆ c) ಸಖೀಗೀತ d) ಪಕ್ಷೀಕಾಶಿ



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37. 'ಸಾಬಾಣ' - ಈ ಪದದ ಅರ್ಥವೇನು?

a) ಓಲೆ b) ಕಾಲುಗೆಜ್ಜೆ c) ಮಾಲೆ d) ಸಾಬೂನು

38. 'ಹೊಸಬಾಳಿನ ಗೀತೆ' ಕವನವನ್ನು ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?

a) ಕೋಗಿಲೆ ಮತ್ತು ಸೊವಿಯತ್ ರಷ್ಯಾ

b) ಭೂಮಿಗೀತೆ

c) ನಾದಲೀಲೆ

d) ಪಕ್ಷಿಕಾಶಿ

39. 'ವಿಪ್ಲವ' ಪದದ ಅರ್ಥವೇನು?

a) ಸ್ವರ್ಗ b) ಬೆಂಕಿ c) ಕ್ರಾಂತಿ d) ನರಕ

40. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ _____ ಕಲೆಗೆ ಮೂಲ ನೆಲೆ?

a) ಚಿತ್ರ b) ಬಣ್ಣ c) ನೇಯ್ಗೆ d) ಮುದ್ರಣ

41. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರಿಗೆ ಭಾರತದ ಯಾವ ಅತ್ಯುನ್ನತ ಪ್ರಶಸ್ತಿ ಲಭಿಸಿದೆ?

a) ಕರ್ನಾಟಕ ರತ್ನ b) ಜ್ಞಾನಪೀಠ c) ನೊಬೆಲ್ d) ಭಾರತ ರತ್ನ

42 ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಯಾವ ಸಂಸ್ಥಾನದ ದಿನಾನರಾಗಿದ್ದರು?

a) ಮೈಸೂರು b) ಬೆಂಗಳೂರು c) ವಿಜಯನಗರ d) ಮದ್ರಾಸ್

43. ಯುಗಾದಿ - ಈ ಕಥೆಯ ಲೇಖಕರು ಯಾರು?

a) ಬೇಂದ್ರೆ b) ವಸುಧೇಂದ್ರ

c) ಮೂರ್ತಿರಾವ್ d) ಬೋರಲಿಂಗಯ್ಯ

44. ಗೋಪಣ್ಣನ ಮಗನ ಹೆಸರೇನು?

a) ರಾಮ b) ಕಾಸೀಂ c) ಪ್ರಹ್ಲಾದ d) ಪ್ರಸನ್ನ

45. ಕರಕುಶಲ ಕಲೆಗಳಿಗೆ ಪೆಟ್ಟು ಬಿದ್ದಿದ್ದು ಯಾವುದರಿಂದ?

a) ಜಾಗತೀಕರಣ

b) ಉದಾರಿಕರಣ

c) ಖಾಸಗಿಕರಣ

d) ಕೈಗಾರಿಕರಣ



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46. ಮೆಗಾನೆ ಎಂಬ ಗಿರಜನ ಪರ್ವತ ಲೇಖನದ ಕರ್ತೃ ಯಾರು?

a) ಹಂಪನಾಗರಾಜಯ್ಯ

b) ಎ.ಎನ್. ಮೂರ್ತಿರಾವ್

c) ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ

d) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ

47. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ ಪ್ರಬಂಧವನ್ನು ಯಾವ ಪ್ರವಾಸ ಕಥನದಿಂದ ಆಯ್ದು ಕೊಳ್ಳಲಾಗಿದೆ?

a) ಗಿರಿಜನ ನಾಡಿಗೆ ಪಯಣ

b) ಮೆಗಾನೆ

c) ಆನೆಕಾಡು

d) ಗಿರಿಜನ

48. ಮೆಗಾನೆ ಹಳ್ಳಿಯಲ್ಲಿ ಯಾವ ಜನಾಂಗ ವಾಸವಾಗಿದ್ದರು?

a) ಗೊಂಡ b) ತೊಡವ c) ಕುಣಬಿ d) ಮಾಳವ

49. 'ಅನ್ನದ ದಾರಿ' - ಈ ನುಡಿಗಟ್ಟಿನ ಅರ್ಥವೇನು?

a) ರಸ್ತೆಮಾರ್ಗ

b) ಬದುಕುವ ಮಾರ್ಗ

c) ಕಾಲುದಾರಿ

d) ಮನೆದಾರಿ

50. 'ಭೀತಿ' - ಇದರ ವಿರುದ್ಧಾರ್ಥಕ ಪದ.

a) ಅಭೀತಿ b) ನಿರ್ಭೀತಿ c) ಅಭಯ d) ಯಾವುದು ಅಲ್ಲ

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# Fifth Semester B.E./B.Tech. Degree Examination, June / July 2026
## Research Methodology and Intellectual Property Rights

Time: 3 hrs. Max. Marks: 100

***Note: Answer any FIVE full questions, choosing ONE full question from each module.***

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

**Module-1**

| | | | | |
|---|---|---|---|---|
| 1 | a. | Discuss Research flow with diagram. | | **(10 Marks)** |
| | b. | Summarize different types and Research misconduct. | | **(10 Marks)** |
| | | **OR** | | |
| 2 | a. | Compare different types of engineering research on your own perspective. | | **(10 Marks)** |
| | b. | Discuss how technological developments affect the ethics in research. | | **(10 Marks)** |

**Module-2**

| | | | | |
|---|---|---|---|---|
| 3 | a. | Compare Web of Science , Google scholar and Google for academic research. | | **(10 Marks)** |
| | b. | Outline the consequences of failing to give proper credit in academic writing. | | **(10 Marks)** |
| | | **OR** | | |
| 4 | a. | Discuss the Literature Survey procedure and outcome of the Literature Survey. | | **(10 Marks)** |
| | b. | Explore the impact of a well crafted title on the visibility and citation of a research paper. | | **(10 Marks)** |

**Module-3**

| | | | | |
|---|---|---|---|---|
| 5 | a. | Describe the History of IP in India. | | **(10 Marks)** |
| | b. | Discuss the process of filing a Patent Application. | | **(10 Marks)** |
| | | **OR** | | |
| 6 | a. | Explain Non – Patentable matters in detail. | | **(10 Marks)** |
| | b. | Summarize commonly used terms in Patenting. | | **(10 Marks)** |

**Module-4**

| | | | | |
|---|---|---|---|---|
| 7 | a. | Outline the copy right registration along with statement of particulars. | | **(10 Marks)** |
| | b. | Compare different types of trade marks. | | **(10 Marks)** |

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**OR**

**8** a. Describe the following:
i) Copyright and the word "Publish"
ii) Copyright and the word " Adaptation"
iii) Copyright and the word "Indian Work" **(10 Marks)**

b. Explain the process for Trademark registration. **(10 Marks)**

## Module-5

**9** a. Explain Acts and Laws to Govern industrial design. **(10 Marks)**

b. Discuss the following :
i) Classes of GI
ii) Non – Registerable GI
iii) Protection of GI **(10 Marks)**

**OR**

**10** a. Summarize the following :
i) Classification of Industrial design
ii) Design registration Trend in India. **(10 Marks)**

b. Outline the following :
i) Registered GI in India
ii) GI Eco System in India. **(10 Marks)**

* * * * *

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CBCS SCHEME

**21SFH29/22BI207**

USN | | | | | | | | | | |

**Question Paper Version : A**

# Second Semester B.Arch./B.Planning/B.Design Degree Examination, June/July 2026

## Scientific Foundations of Health

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
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---

1. The term 'health' is defined in many ways. The most accurate definition of the health would be
   a) Health is the reflection of a smiling face
   b) Health is a state of complete physical, mental and social well-being
   c) Health is the symbol of economic prosperity
   d) Health is the state of body and mind in a balanced condition

2. _______ is the disorder that effects a person's ability to think, fell and behave clearly.
   a) Extroversion b) Openness
   c) Schizophrenia d) Anorexia nervosa

3. The six dimensions of wellness include all of the following except
   a) Environmental wellness b) Dietary wellness
   c) Spiritual wellness d) Emotional wellness

4. _______ is stress that seems never-ending and inescapable.
   a) Chronic stress b) Acute stress
   c) Eustress d) Episodic acute stress

5. To achieve good health and well being one should
   a) Regular exercises b) Consume appropriate amount of water
   c) All of these d) Eat healthy meals

6. Which is not one of the nine life skills?
   a) Using refusal skills
   b) Proving other wrong
   c) Assessing your health
   d) Evaluating media message/analyzing influences



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**7.** An example of good _____, is volunteering to do things for your community.
a) Emotional Health
b) Social Health
c) Physical Health
d) Mental Health

**8.** HIA stands for
a) Health Involvement Act
b) Health Impact Assessment
c) Health Indent Act
d) Health Impact of Ads

**9.** A mental illness, such as depression or _____ can affect body weight and overall function.
a) Anorexia
b) Chronic illness
c) Eating disorders
d) None of these

**10.** Match the risk factors and its causes.

| | |
|---|---|
| (i) Smoking | (a) Liver damage, stroke and cancer |
| (ii) Drinking alcohol | (b) Lung cancer and cardiovascular disease |
| (iii)Extreme physical activity/sports | (c) Leads to broken bones and other types of injuries |

a) (i) – (a), (ii) – (b) and (iii) – (c)
b) (i) – (b), (ii) – (a) and (iii) – (c)
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d) (i) – (c), (ii) – (a) and (iii) – (b)

**11.** What should be the proportion of whole grain food in your meal?
a) 25%
b) 15%
c) 20%
d) 5%

**12.** The state of the body as a result of foods consumed and their utilization by the body is
a) Nutritional stress
b) Calories
c) Body mass
d) Life style

**13.** Large amount of foods are consumed in short period of time
a) Binge eating disorder
b) Anorexia nervosa
c) Pica eating disorder
d) Bulimia nervosa

**14.** A new WHO guideline recommends adults and children reduce their daily intake of free sugars to less than _____ of their total energy intake.
a) 10%
b) 13%
c) 15%
d) 20%

**15.** What is the definition of overweight in BMI?
a) BMI > 25 kg/$m^2$
b) BMI = 25 kg/$m^2$
c) BMI = 25 – 29.9 kg/$m^2$
d) BMI = 25 – 30 kg/$m^2$

**16.** The bread, cereal, rice and pasta group is a good source of
a) Carbohydrate
b) Vitamin D
c) Calcium
d) Vitamin C

**17.** What are the main causes of the obesity epidemic?
a) Increased energy quality/density and a more sedentary life style
b) Decreased leisure time activity
c) Changes in genetic profiles
d) None of these



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**18.** An intense fear of gaining weight or persistent behaviours to avoid gaining weight, despite being underweight is
a) Bulimina Nervosa b) Pica eating disorder
c) Anorexia nervosa d) Binge eating disorder

**19.** _______ is the ability of the muscles to perform continuous without fatiguing.
a) Flexibility b) Body composition
c) Muscular strength d) Muscular Endurance

**20.** WHO recommends a vigorous-intensity physical activity of at least ______ minutes throughout week.
a) 60 min b) 75 min
c) 100 min d) 15 min

**21.** Which of the following factors helps in strengthening friendships?
a) Avoid forgiving and seeking forgiveness b) Don't judge each other's choices
c) Support, trust and honesty d) Talk behind a friends back

**22.** Environmental barriers are the same as ________ noise.
a) Physiological b) Psychological
c) Physical d) Sociological

**23.** The _____ is the person who transmits the message.
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a) To inform, to persuade b) To inform, fear of offending
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a) Social Engineering b) Environmental Engineering
c) Economic Engineering d) Business Engineering

**26.** Basic instincts of human life
a) Sexual b) Social
c) Self preservance d) All of these

**27.** _______ communication includes tone of voice, body language, facial expression etc.
a) Non verbal b) Notice
c) Verbal d) Letter

**28.** The information which is transferred to the receiver has to be interpreted this process is called _________
a) Encoding b) Decoding
c) Opening d) Closing

**29.** Barriers of communication are
a) Cultural differences b) Inability to listen to others
c) Jumping to conclusions d) All of these



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**30.** Match barriers with their causes:

| | |
|---|---|
| (1) Physical Barrier | (a) Different Generation or different region |
| (2) Language Barrier | (b) Inadequate Equipment |
| (3) Physiological Barrier | (c) Use of old software technology |
| (4) Technology Barrier | (d) ill health, poor eye sight |

a) (1) – (a), (2) – (b), (3) – (c), (4) – (d) b) (1) – (d), (2) – (c), (3) – (b), (4) – (a)
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**31.** SUD stands for
a) Substance Use Disorder b) Star Union Dia-ichi Life Insurance
c) Summary of Unadjusted Differences d) None of these

**32.** _______ is a chronic disorder with biological, psychological, social and environmental factors influencing its development and maintenance.
a) Mental disorder b) Addiction
c) Physical disorder d) None of these

**33.** Types of Addictive Behaviours are
a) Pornography b) Alcoholism / Tobacco
c) Video gaming d) All of these

**34.** Reasons for taking drugs
a) To be better – feeling of pleasure
b) To feel good – relieve stress
c) To feel better – improve performance or thinking
d) All of these

**35.** ________ can help addicted patients overcome substance abuse by teaching them to recognize and avoid destructive thoughts and behaviours.
a) Contingency management b) Motivational interviewing
c) Cognitive-behavioural therapy d) Psychodrama and group therapies

**36.** How many principles of effective drug addiction treatment are there?
a) 12 b) 15
c) 10 d) 13

**37.** Which organ is adversely affected by alcohol?
a) Lung b) Kidney
c) Liver d) Heart

**38.** Tobacco addiction occurs due to
a) Caffeine b) Nicotine
c) Cocaine d) Histamine

**39.** Drug Abuse Act in India
a) 1985 b) 1987
c) 1988 d) 1990

**40.** The consequences of addiction are
a) Cardiovascular disease b) Hepatitis B and C
c) Cancer d) All of these

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**41.** The full form of CDC in health protection agency
a) Centre for Disease Control and Prevention
b) Change Data Capture
c) Continuous Discharge Certificate
d) None of these

**42.** What are the three things necessary for an infection to occur?
a) Source, susceptible person with a way for germs to enter the body
b) Transmission
c) Both a and b
d) All of these

**43.** Which agent growth replication determined by environment?
a) Protozoa
b) Fungi
c) Viruses
d) Bacteria

**44.** How to reduce risks for good health?
a) Practice Hygiene
b) Be physically active everyday
c) Be a non-smoker and avoid second hand smoke
d) All of these

**45.** Common chronic illnesses are
a) Heart disease and Type 2 diabetes
b) Obesity and Osteoporosis
c) Both a and b
d) None of these

**46.** Components of quality of life are
a) Physical functioning and social functioning
b) Psychological status and Disease of treatment
c) Not a and b
d) Both a and b

**47.** ________ measures the value of all the assets of worth owned by a person, community, company or country
a) Health
b) Wealth
c) Happiness
d) Status

**48.** Which rights of youth supports the children and adolescents to the enjoyment of the highest attainable standard of health?
a) The committee on the "Rights of the Child (CRC)"
b) The "Right to education and employment"
c) "Freedom from abuse and violence"
d) The "Right to autonomy and freedom"

**49.** Which Right of act sets out the rights of "women and girls" to health and adequate healthcare.
a) Right to Equality
b) The convention on the Elimination of Discrimination Against Women (CEDAW)
c) The protection of women from Domestic Violence Act
d) None of these

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**50.** Definition of Yoga refers to
a) Control on mind
b) Control on sense organs, mind and intellect
c) Control on sense organs and intellect
d) Control on body and mind

* * * * *

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CBCS SCHEME

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Question Paper Version : B

# Second Semester B.Arch./B.Planning/B.Design Degree Examination, June/July 2026

## Scientific Foundations of Health

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a) (i) – (a), (ii) – (b) and (iii) – (c)
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**49.** Barriers of communication are

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(2) Language Barrier
(3) Physiological Barrier
(4) Technology Barrier

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(b) Inadequate Equipment
(c) Use of old software technology
(d) ill health, poor eye sight

a) (1) – (a), (2) – (b), (3) – (c), (4) – (d)
b) (1) – (d), (2) – (c), (3) – (b), (4) – (a)
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**Question Paper Version : C**

# Second Semester B.Arch./B.Planning/B.Design Degree Examination, June/July 2026

## Scientific Foundations of Health

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
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   c) Physical disorder
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   a) Pornography
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   b) Motivational interviewing
   c) Cognitive-behavioural therapy
   d) Psychodrama and group therapies

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   a) 12
   b) 15
   c) 10
   d) 13



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**7.** Which organ is adversely affected by alcohol?
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**13.** The six dimensions of wellness include all of the following except
a) Environmental wellness
b) Dietary wellness
c) Spiritual wellness
d) Emotional wellness

**14.** _____ is stress that seems never-ending and inescapable.
a) Chronic stress
b) Acute stress
c) Eustress
d) Episodic acute stress

**15.** To achieve good health and well being one should
a) Regular exercises
b) Consume appropriate amount of water
c) All of these
d) Eat healthy meals

**16.** Which is not one of the nine life skills?
a) Using refusal skills
b) Proving other wrong
c) Assessing your health
d) Evaluating media message/analyzing influences

**17.** An example of good _____, is volunteering to do things for your community.
a) Emotional Health
b) Social Health
c) Physical Health
d) Mental Health



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**18.** HIA stands for
a) Health Involvement Act
b) Health Impact Assessment
c) Health Indent Act
d) Health Impact of Ads

**19.** A mental illness, such as depression or _______ can affect body weight and overall function.
a) Anorexia
b) Chronic illness
c) Eating disorders
d) None of these

**20.** Match the risk factors and its causes.

| | |
|---|---|
| (i) Smoking | (a) Liver damage, stroke and cancer |
| (ii) Drinking alcohol | (b) Lung cancer and cardiovascular disease |
| (iii) Extreme physical activity/sports | (c) Leads to broken bones and other types of injuries |

a) (i) – (a), (ii) – (b) and (iii) – (c)
b) (i) – (b), (ii) – (a) and (iii) – (c)
c) (i) – (b), (ii) – (c) and (iii) – (a)
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**21.** The full form of CDC in health protection agency
a) Centre for Disease Control and Prevention
b) Change Data Capture
c) Continuous Discharge Certificate
d) None of these

**22.** What are the three things necessary for an infection to occur?
a) Source, susceptible person with a way for germs to enter the body
b) Transmission
c) Both a and b
d) All of these

**23.** Which agent growth replication determined by environment?
a) Protozoa
b) Fungi
c) Viruses
d) Bacteria

**24.** How to reduce risks for good health?
a) Practice Hygiene
b) Be physically active everyday
c) Be a non-smoker and avoid second hand smoke
d) All of these

**25.** Common chronic illnesses are
a) Heart disease and Type 2 diabetes
b) Obesity and Osteoporosis
c) Both a and b
d) None of these

**26.** Components of quality of life are
a) Physical functioning and social functioning
b) Psychological status and Disease of treatment
c) Not a and b
d) Both a and b



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**27.** ________ measures the value of all the assets of worth owned by a person, community, company or country
a) Health
b) Wealth
c) Happiness
d) Status

**28.** Which rights of youth supports the children and adolescents to the enjoyment of the highest attainable standard of health?
a) The committee on the "Rights of the Child (CRC)"
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**30.** Definition of Yoga refers to
a) Control on mind
b) Control on sense organs, mind and intellect
c) Control on sense organs and intellect
d) Control on body and mind

**31.** Which of the following factors helps in strengthening friendships?
a) Avoid forgiving and seeking forgiveness
b) Don't judge each other's choices
c) Support, trust and honesty
d) Talk behind a friends back

**32.** Environmental barriers are the same as ________ noise.
a) Physiological
b) Psychological
c) Physical
d) Sociological

**33.** The _____ is the person who transmits the message.
a) Receiver
b) Sender
c) Driver
d) Cleaner

**34.** Goals of communication skills
a) To inform, to persuade
b) To inform, fear of offending
c) To persuade, fear of offending
d) All of these

**35.** _______ is the centralized planning in an attempt to manage social change and regulate future development and behaviour of a society.
a) Social Engineering
b) Environmental Engineering
c) Economic Engineering
d) Business Engineering

**36.** Basic instincts of human life
a) Sexual
b) Social
c) Self preservance
d) All of these



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**37.** _______ communication includes tone of voice, body language, facial expression etc.
a) Non verbal
b) Notice
c) Verbal
d) Letter

**38.** The information which is transferred to the receiver has to be interpreted this process is called _________
a) Encoding
b) Decoding
c) Opening
d) Closing

**39.** Barriers of communication are
a) Cultural differences
b) Inability to listen to others
c) Jumping to conclusions
d) All of these

**40.** Match barriers with their causes:

| | |
|---|---|
| (1) Physical Barrier | (a) Different Generation or different region |
| (2) Language Barrier | (b) Inadequate Equipment |
| (3) Physiological Barrier | (c) Use of old software technology |
| (4) Technology Barrier | (d) ill health, poor eye sight |

a) (1) – (a), (2) – (b), (3) – (c), (4) – (d)
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**41.** What should be the proportion of whole grain food in your meal?
a) 25%
b) 15%
c) 20%
d) 5%

**42.** The state of the body as a result of foods consumed and their utilization by the body is
a) Nutritional stress
b) Calories
c) Body mass
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**43.** Large amount of foods are consumed in short period of time
a) Binge eating disorder
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**44.** A new WHO guideline recommends adults and children reduce their daily intake of free sugars to less than _______ of their total energy intake.
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**45.** What is the definition of overweight in BMI?
a) BMI > 25 $kg/m^2$
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**46.** The bread, cereal, rice and pasta group is a good source of
a) Carbohydrate
b) Vitamin D
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**47.** What are the main causes of the obesity epidemic?
a) Increased energy quality/density and a more sedentary life style
b) Decreased leisure time activity
c) Changes in genetic profiles
d) None of these

**48.** An intense fear of gaining weight or persistent behaviours to avoid gaining weight, despite being underweight is

a) Bulimina Nervosa
b) Pica eating disorder
c) Anorexia nervosa
d) Binge eating disorder

**49.** _____ is the ability of the muscles to perform continuous without fatiguing.

a) Flexibility
b) Body composition
c) Muscular strength
d) Muscular Endurance

**50.** WHO recommends a vigorous-intensity physical activity of at least _____ minutes throughout week.

a) 60 min
b) 75 min
c) 100 min
d) 15 min

* * * * *

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CBCS SCHEME

21SFH29/22BI207

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**Question Paper Version : D**

# Second Semester B.Arch./B.Planning/B.Design Degree Examination, June/July 2026

## Scientific Foundations of Health

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
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1. Which of the following factors helps in strengthening friendships?
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2. Environmental barriers are the same as _____ noise.
   a) Physiological b) Psychological
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   a) Sexual b) Social
   c) Self preservance d) All of these

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**20.** Definition of Yoga refers to
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b) Control on sense organs, mind and intellect
c) Control on sense organs and intellect
d) Control on body and mind

**21.** SUD stands for
a) Substance Use Disorder b) Star Union Dia-ichi Life Insurance
c) Summary of Unadjusted Differences d) None of these

**22.** _______ is a chronic disorder with biological, psychological, social and environmental factors influencing its development and maintenance.
a) Mental disorder b) Addiction
c) Physical disorder d) None of these

**23.** Types of Addictive Behaviours are
a) Pornography b) Alcoholism / Tobacco
c) Video gaming d) All of these

**24.** Reasons for taking drugs
a) To be better – feeling of pleasure
b) To feel good – relieve stress
c) To feel better – improve performance or thinking
d) All of these

**25.** ________ can help addicted patients overcome substance abuse by teaching them to recognize and avoid destructive thoughts and behaviours.
a) Contingency management b) Motivational interviewing
c) Cognitive-behavioural therapy d) Psychodrama and group therapies



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**26.** How many principles of effective drug addiction treatment are there?
a) 12 b) 15
c) 10 d) 13

**27.** Which organ is adversely affected by alcohol?
a) Lung b) Kidney
c) Liver d) Heart

**28.** Tobacco addiction occurs due to
a) Caffeine b) Nicotine
c) Cocaine d) Histamine

**29.** Drug Abuse Act in India
a) 1985 b) 1987
c) 1988 d) 1990

**30.** The consequences of addiction are
a) Cardiovascular disease b) Hepatitis B and C
c) Cancer d) All of these

**31.** What should be the proportion of whole grain food in your meal?
a) 25% b) 15%
c) 20% d) 5%

**32.** The state of the body as a result of foods consumed and their utilization by the body is
a) Nutritional stress b) Calories
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d) Muscular Endurance

**40.** WHO recommends a vigorous-intensity physical activity of at least ______ minutes throughout week.
a) 60 min
b) 75 min
c) 100 min
d) 15 min

**41.** The term 'health' is defined in many ways. The most accurate definition of the health would be
a) Health is the reflection of a smiling face
b) Health is a state of complete physical, mental and social well-being
c) Health is the symbol of economic prosperity
d) Health is the state of body and mind in a balanced condition

**42.** _______ is the disorder that effects a person's ability to think, fell and behave clearly.
a) Extroversion
b) Openness
c) Schizophrenia
d) Anorexia nervosa

**43.** The six dimensions of wellness include all of the following except
a) Environmental wellness
b) Dietary wellness
c) Spiritual wellness
d) Emotional wellness

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CBCS SCHEME

21UH49

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Question Paper Version : A

# Fourth Semester B.Arch./B.Planning Degree Examination, June/July 2026

## Universal Human Values

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
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**1.** Value education addresses fundamental issues which are important to all of us and directly relates to our ________
a) happiness
b) aspirations
c) goals and success in life
d) All of these

**2.** Understanding value education enables us to be in harmony within ourselves, with other human beings, with nature at large.
The above statement is ______
a) True b) False

**3.** Correct identification of ______, can frame your goals and subgoals.
a) Facilities
b) Time
c) Basic belief
d) Basic aspiration

**4.** Value and ______ lead to success of human endeavour
a) Wealth
b) Fortune
c) Skills
d) None of these

**5.** Without the decision, technology can be aimless, directionless and therefore can be put to any use, either constructive or destructive.
The above statement is ______
a) True b) False



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**6.** Which of the following is fact about belief?
a) Change with time
b) Is not the same for everybody
c) Can be held by a small or large group of people, but not universal
d) All of these

**7.** Self exploration excludes verification at the level of natural and experimental validation in living.
The above statement is _____
a) True b) False

**8.** Understanding Universal Human Values will lead harmony in us, harmony in our interaction with _____ and the rest of the nature.
a) Other humans
b) Natural calamities
c) Birds
d) None of these

**9.** Select the wrong statement.
a) Innateness means Svatva
b) Self organization means Swatantrata
c) Self expression means Swarajya
d) Physical health means Swastika

**10.** The development of ethical competence is a long-term process to be achieved through appropriate value education.
The above statement is _____
a) True b) False

**11.** Prosperity is related to material things, also called as _____
a) Physical facilities
b) Happiness
c) Self-exploration
d) None of these

**12.** Prevailing Notion of happiness and prosperity includes _____
a) all level of individual
b) all level of family
c) all level of society
d) all of these

**13.** Which of the following statement is incorrect ?
a) Physical facilities are unnecessary but complete for humans
b) Physical facilities are necessary but not complete for humans
c) Physical facilities are necessary and complete for animals
d) Both (b) and (c)

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**14.** Aliveness is also called as ______
a) Mamta
b) Jivana
c) Suvidha
d) Swarajya

**15.** Human being has two aspects body and _______
a) awareness
b) loneliness
c) aliveness
d) None of these

**16.** The need of the self ('I') for happiness is fulfilled by ______ and right feelings.
a) Both b and c
b) Physical facilities
c) Right gesture
d) Right understanding

**17.** Physical facilities is also called as Sukha.
The above statement is ______
a) True
b) False

**18.** The need of the body is food, clothing, shelter, or physical facilities are ______ in time.
a) Continuous
b) Permanent
c) Temporary
d) None of these

**19.** The need of 'I' are _____, they are not _____
a) Finite, infinite
b) Holistic, separate
c) Quantitative, significant
d) Qualitative, Quantifiable

**20.** Physical facility is required for nurturing, protection and right utilization of the
a) Body
b) Self
c) Thought
d) Sensation

**21.** Which of the following statement is correct?
a) Material entity not only performs material activity, but desires, thinks and selects
b) The conscious entity only has recognizing and fulfilling activity
c) Material entity has knowing, assuming, recognizing and fulfilling
d) The conscious entity desires, thinks and selects

**22.** Body is _____ instrument, where _____ the seer, doer and enjoyer
a) Other, they are
b) Other, I am
c) My, others are
d) My, I am

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**23.** Prosperity is also called as _____
a) Passion
b) Faith
c) Physical facilities
d) None of these

**24.** Power is also called as _____
a) Asha b) Sakti c) Kriya d) None of these

**25.** Understanding of human values gives us definite way to fulfill our_____
a) Aspiration
b) Wrong concepts
c) Emotions
d) Family

**26.** Desires, thoughts and expectations are largely being said by _____
a) Preconditioning
b) Sensations
c) Both a and b
d) None of these

**27.** Power of Desire is also called as _____
a) Analyzing
b) Imaging
c) Selecting
d) Tasting

**28.** We have to start verifying our assumptions, beliefs on the basis of our _____ and _____
a) Natural acceptance and experiential validation
b) National acceptance and belief
c) Fate and belief
d) Fate and experiential validation

**29.** Prosperity is related to _____
a) Emotional stability
b) Material Things
c) Self exploration
d) None of these

**30.** Understanding and living with Sanyama (i.e. self–regulation) does not lead to _____
a) Exploitation of body
b) Nurturing of the body
c) Right utilization of the body
d) Protection of the body

**31.** Every human being wants to respect and be _____
a) Respected
b) Abused
c) Oppressed
d) Misused

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**32.** Natural acceptances does not depend on _____
a) Place
b) Beliefs
c) Past conditioning
d) All of these

**33.** Respect is also called as _____
a) Sammana
b) Sanrakshana
c) Vishvasam
d) None of these

**34.** Affection is the feeling of being related to the other, it helps the other to grow
The above statement is ______
a) True b) False

**35.** The feeling of acceptance of excellence in the other is called _____
a) guidance b) reverence c) glory d) care

**36.** Feeling of ______ which lays down the basis of an undivided society.
a) glory b) love c) reverence d) none of these

**37.** Undivided society is also called as _____
a) Vinimaya b) Kosa
c) Akhanda Samaja d) Sarvabhauma Vyavastha

**38.** 'Human-Human relation' – its recognition, fulfillment, evaluation leading to mutual happiness is called _____
a) Preservation b) Jurisdiction c) Justice d) none of these

**39.** Undivided society means _____
a) Divide and rule
b) Feeling of being not related to every human being
c) Feeling of loving yourself the most
d) Feeling of being related to every human being

**40.** Which of the following is one of the four orders?
a) Material order b) Plant/Bio order
c) Animal order d) All of these

**41.** Basic activity for understanding the four orders is ____
a) Unknowing b) Ignoring
c) Knowing d) none of these

**42.** Each order has a certain value. In fundamental ways, this is the 'usefulness' or 'participation' of the order in existence also called as _____
a) Conformance b) Innateness
c) Natural characteristics d) Things

**43.** Which of the following is an example of material order?
a) Soil b) Water c) Air d) All of these

**44.** Which of the following is not an example of bio order?
a) Grass b) Trees c) Flowers d) Bee

**45.** Which of the following is an example of human order?
a) Tiger b) Human being c) Sun d) Mermaid

**46.** Which of the following sentence is incorrect according to "Harmony is Existence – understanding existence as co-existence"?
a) Space is not a unit
b) Space is the alone time needed in relationship
c) We can't touch, see or smell space but it exists!
d) Space is not just between the earth and sun.

**47.** The journey towards right understanding brings transformation in human beings from _____
a) Poor person to rich person
b) Animal to human
c) Animal consciousness to human consciousness
d) None of these

**48.** Nature has four orders and there are units in each order of _____ size
a) Unlimited b) Magnificent c) Limited d) None of these

**49.** Each unit of the four orders in nature is _____ and active
a) inactive b) lifeless c) unenergetic d) dynamic

**50.** Which of the following statement is correct?
a) The values are not to be enforced through fear
b) The values are not to be enforced through greed
c) The values are not to be enforced through blind faith
d) All of these

* * * * *

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CBCS SCHEME

**21UH49**

USN | | | | | | | | | |

**Question Paper Version : B**

# Fourth Semester B.Arch./B.Planning Degree Examination, June/July 2026

## Universal Human Values

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

---

1. Every human being wants to respect and be _____
   a) Respected
   b) Abused
   c) Oppressed
   d) Misused

2. Natural acceptances does not depend on _____
   a) Place
   b) Beliefs
   c) Past conditioning
   d) All of these

3. Respect is also called as _____
   a) Sammana
   b) Sanrakshana
   c) Vishvasam
   d) None of these

4. Affection is the feeling of being related to the other, it helps the other to grow
   The above statement is ______
   a) True b) False

5. The feeling of acceptance of excellence in the other is called _____
   a) guidance b) reverence c) glory d) care

6. Feeling of ______ which lays down the basis of an undivided society.
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7. Undivided society is also called as _____
a) Vinimaya
b) Kosa
c) Akhanda Samaja
d) Sarvabhauma Vyavastha

8. 'Human-Human relation' – its recognition, fulfillment, evaluation leading to mutual happiness is called _____
a) Preservation
b) Jurisdiction
c) Justice
d) none of these

9. Undivided society means _____
a) Divide and rule
b) Feeling of being not related to every human being
c) Feeling of loving yourself the most
d) Feeling of being related to every human being

10. Which of the following is one of the four orders?
a) Material order
b) Plant/Bio order
c) Animal order
d) All of these

11. Value education addresses fundamental issues which are important to all of us and directly relates to our ________
a) happiness
b) aspirations
c) goals and success in life
d) All of these

12. Understanding value education enables us to be in harmony within ourselves, with other human beings, with nature at large.
The above statement is ______
a) True
b) False

13. Correct identification of ______, can frame your goals and subgoals.
a) Facilities
b) Time
c) Basic belief
d) Basic aspiration

14. Value and ______ lead to success of human endeavour
a) Wealth
b) Fortune
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15. Without the decision, technology can be aimless, directionless and therefore can be put to any use, either constructive or destructive.
The above statement is ______
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16. Which of the following is fact about belief?
a) Change with time
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17. Self exploration excludes verification at the level of natural and experimental validation in living.
The above statement is ______
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18. Understanding Universal Human Values will lead harmony in us, harmony in our interaction with ______ and the rest of the nature.
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19. Select the wrong statement.
a) Innateness means Svatva
b) Self organization means Swatantrata
c) Self expression means Swarajya
d) Physical health means Swastika

20. The development of ethical competence is a long-term process to be achieved through appropriate value education.
The above statement is ______
a) True b) False

21. Basic activity for understanding the four orders is ____
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c) Knowing d) none of these

22. Each order has a certain value. In fundamental ways, this is the 'usefulness' or 'participation' of the order in existence also called as _____
a) Conformance b) Innateness
c) Natural characteristics d) Things

23. Which of the following is an example of material order?
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25. Which of the following is an example of human order?
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**28.** Nature has four orders and there are units in each order of _____ size
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**30.** Which of the following statement is correct?
a) The values are not to be enforced through fear
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d) All of these

**31.** Which of the following statement is correct?
a) Material entity not only performs material activity, but desires, thinks and selects
b) The conscious entity only has recognizing and fulfilling activity
c) Material entity has knowing, assuming, recognizing and fulfilling
d) The conscious entity desires, thinks and selects

**32.** Body is _____ instrument, where _____ the seer, doer and enjoyer
a) Other, they are
b) Other, I am
c) My, others are
d) My, I am

**33.** Prosperity is also called as _____
a) Passion
b) Faith
c) Physical facilities
d) None of these

**34.** Power is also called as _____
a) Asha b) Sakti c) Kriya d) None of these



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**35.** Understanding of human values gives us definite way to fulfill our_____
a) Aspiration
b) Wrong concepts
c) Emotions
d) Family

**36.** Desires, thoughts and expectations are largely being said by _____
a) Preconditioning
b) Sensations
c) Both a and b
d) None of these

**37.** Power of Desire is also called as _____
a) Analyzing
b) Imaging
c) Selecting
d) Tasting

**38.** We have to start verifying our assumptions, beliefs on the basis of our _____ and _____
a) Natural acceptance and experiential validation
b) National acceptance and belief
c) Fate and belief
d) Fate and experiential validation

**39.** Prosperity is related to _____
a) Emotional stability
b) Material Things
c) Self exploration
d) None of these

**40.** Understanding and living with Sanyama (i.e. self–regulation) does not lead to _____
a) Exploitation of body
b) Nurturing of the body
c) Right utilization of the body
d) Protection of the body

**41.** Prosperity is related to material things, also called as _______
a) Physical facilities
b) Happiness
c) Self-exploration
d) None of these

**42.** Prevailing Notion of happiness and prosperity includes _______
a) all level of individual
b) all level of family
c) all level of society
d) all of these



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**43.** Which of the following statement is incorrect?
a) Physical facilities are unnecessary but complete for humans
b) Physical facilities are necessary but not complete for humans
c) Physical facilities are necessary and complete for animals
d) Both (b) and (c)

**44.** Aliveness is also called as ______
a) Mamta b) Jivana
c) Suvidha d) Swarajya

**45.** Human being has two aspects body and _______
a) awareness
b) loneliness
c) aliveness
d) None of these

**46.** The need of the self ('I') for happiness is fulfilled by ______ and right feelings.
a) Both b and c
b) Physical facilities
c) Right gesture
d) Right understanding

**47.** Physical facilities is also called as Sukha.
The above statement is ______
a) True b) False

**48.** The need of the body is food, clothing, shelter, or physical facilities are ______ in time.
a) Continuous
b) Permanent
c) Temporary
d) None of these

**49.** The need of 'I' are _____, they are not _____
a) Finite, infinite
b) Holistic, separate
c) Quantitative, significant
d) Qualitative, Quantifiable

**50.** Physical facility is required for nurturing, protection and right utilization of the
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CBCS SCHEME

21UH49

USN | | | | | | | | | |

Question Paper Version : C

# Fourth Semester B.Arch./B.Planning Degree Examination, June/July 2026

## Universal Human Values

Time: 1 hr. Max. Marks: 50

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   b) The conscious entity only has recognizing and fulfilling activity
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2. Body is _____ instrument, where _____ the seer, doer and enjoyer
   a) Other, they are
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   c) My, others are
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3. Prosperity is also called as _____
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The above statement is ______
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**26.** Feeling of _____ which lays down the basis of an undivided society.
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b) Physical facilities
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**37.** Physical facilities is also called as Sukha.
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b) Permanent
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CBCS SCHEME

21UH49

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**Question Paper Version : D**

# Fourth Semester B.Arch./B.Planning Degree Examination, June/July 2026
## Universal Human Values

Time: 1 hr. Max. Marks: 50

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**1.** Basic activity for understanding the four orders is ____
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c) My, others are
d) My, I am

**43.** Prosperity is also called as _____
a) Passion
b) Faith
c) Physical facilities
d) None of these

**44.** Power is also called as _____
a) Asha b) Sakti c) Kriya d) None of these

**45.** Understanding of human values gives us definite way to fulfill our_____
a) Aspiration
b) Wrong concepts
c) Emotions
d) Family

**46.** Desires, thoughts and expectations are largely being said by _____
a) Preconditioning
b) Sensations
c) Both a and b
d) None of these

**47.** Power of Desire is also called as _____
a) Analyzing
b) Imaging
c) Selecting
d) Tasting

**48.** We have to start verifying our assumptions, beliefs on the basis of our _____ and _____
a) Natural acceptance and experiential validation
b) National acceptance and belief
c) Fate and belief
d) Fate and experiential validation

**49.** Prosperity is related to _____
a) Emotional stability
b) Material Things
c) Self exploration
d) None of these

**50.** Understanding and living with Sanyama (i.e. self–regulation) does not lead to _____
a) Exploitation of body
b) Nurturing of the body
c) Right utilization of the body
d) Protection of the body

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CBCS SCHEME

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BBOC407

# Fourth Semester B.E./B.Tech. Degree Examination, June/July 2026
## Biology for Computer Engineers

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | What is a Biomolecule? Explain the classification of Biomolecules. | 6 | L2 | CO2 |
| | b. | Compare PHA and PLA Acid properties, with a suitable example. | 7 | L2 | CO2 |
| | c. | What are Nucleic Acids? Explain Nucleic Acids. | 7 | L2 | CO2 |
| | | OR | | | |
| Q.2 | a. | Explain properties of Cellulose-based water filters production. | 6 | L2 | CO2 |
| | b. | Explain properties of Lipids and list different types of lipid. | 7 | L2 | CO2 |
| | c. | Explain properties of Enzymes and list different types of Enzymes. | 7 | L2 | CO2 |
| | | Module – 2 | | | |
| Q.3 | a. | Explain Brain as a CPU system. | 6 | L2 | CO2 |
| | b. | Explain about lens materials by considering CR39 as a example. | 7 | L2 | CO2 |
| | c. | Explain Robotic Arms for prosthetics. | 7 | L2 | CO2 |
| | | OR | | | |
| Q.4 | a. | Write a short note on Cardiac Pace Maker. | 6 | L2 | CO2 |
| | b. | Explain Heart as a Pump System. | 7 | L2 | CO2 |
| | c. | Write a short on Engineering solutions for Parkinson's disease. | 7 | L2 | CO2 |
| | | Module – 3 | | | |
| Q.5 | a. | Write a short on Spirometry and Ventilator. | 6 | L2 | CO2 |
| | b. | Explain Lung as purification system. | 7 | L2 | CO2 |
| | c. | Explain Kidney as a filtration system. | 7 | L2 | CO2 |
| | | OR | | | |
| Q.6 | a. | What is COPD? Explain signs and symptoms of COPD. | 7 | L2 | CO2 |
| | b. | Explain the working of Heart Lung Machine. | 7 | L2 | CO2 |

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|---|---|---|---|---|---|
| | c. | Explain about Dialysis and 2 types of Dialysis. | 6 | L2 | CO2 |
| **Module – 4** | | | | | |
| Q.7 | a. | Explain about Echolocation and mechanics of Echolocation. | 7 | L3 | CO3 |
| | b. | Explain about ultrasonography and SONARS. | 7 | L3 | CO3 |
| | c. | Explain about photosynthesis process and role of chlorophyll in photosynthesis. | 6 | L3 | CO3 |
| **OR** | | | | | |
| Q.8 | a. | Explain the lotus leaf effect, superhydrophobic and self cleaning surfaces. | 7 | L3 | CO3 |
| | b. | Explain about shark skin and swimsuits using biological concepts. | 6 | L3 | CO3 |
| | c. | Explain Hemoglobin Based Oxygen Carries (HBOCs) and Perflurocarbons (PFC). | 7 | L3 | CO3 |
| **Module – 5** | | | | | |
| Q.9 | a. | Explain the DNA ORIGAMI and BIOCOMPUTING. | 7 | L4 | CO4 |
| | b. | Explain the Bioimaging and Artificial intelligence for Disease Diagnosis. | 7 | L4 | CO4 |
| | c. | Explain about Self Healing Bioconcrete. | 6 | L4 | CO4 |
| **OR** | | | | | |
| Q.10 | a. | Explain Bioremediation and Bio mining via microbial surface adsorption. | 8 | L4 | CO4 |
| | b. | Explain the importance of Bioimaging. | 6 | L4 | CO4 |
| | c. | Explain the importance of Bioleaching and Nanomediance. | 6 | L4 | CO4 |

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**CBCS SCHEME**

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**BBOK407**

## Fourth Semester B.E./B.Tech. Degree Examination, June/July 2026
## Biology for Engineers

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Explain the structure and functions of a cell. | **10** | **L2** | **CO1** |
| | **b.** | Identify the differences between Prokaryotic and Eukaryotic cells. | **10** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Explain the properties and functions of carbohydrates. | **10** | **L2** | **CO1** |
| | **b.** | Identify the applications of stem cells. | **10** | **L3** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain the working and development of DNA vaccine for Rabis. | **10** | **L2** | **CO2** |
| | **b.** | Justify cellulose as an effective water filter. | **10** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain the development of RNA vaccines for Covid. | **10** | **L2** | **CO2** |
| | **b.** | Illustrate the properties and applications of PHA as bioplastic. | **10** | **L3** | **CO1** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Justify the working of eye as a camera system. | **10** | **L3** | **CO2** |
| | **b.** | Explain Brain as a CPU system. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.6** | **a.** | Justify the working of heart as a pumping system. | **10** | **L3** | **CO2** |
| | **b.** | Explain the working of Lung as purification system. | **10** | **L2** | **CO2** |



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|---|---|---|---|---|---|
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Explain Echolocation. Discuss the application of echolocation in ultrasonography. | **10** | **L2** | **CO3** |
| | **b.** | The structure and design of Kingfisher beak led to the design of bullet train. Justify. | **10** | **L3** | **CO3** |
| | | **OR** | | | |
| **Q.8** | **a.** | What is Bionic Leaf? Discuss the mechanism of Bionic Leaf. | **10** | **L2** | **CO3** |
| | **b.** | Inspiration derived from the mechanism of birds flight led to the discovery of aircraft. Justify. | **10** | **L3** | **CO3** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Explain the different bio printing techniques and materials. | **10** | **L2** | **CO4** |
| | **b.** | Discuss about how electrical tongue and electrical nose used in food science. | **10** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | Explain the process involved in self healing bioconcrete. | **10** | **L2** | **CO4** |
| | **b.** | Discuss the process of DNA origami and biocomputing. | **10** | **L2** | **CO4** |

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## CBCS 2022 – Scheme

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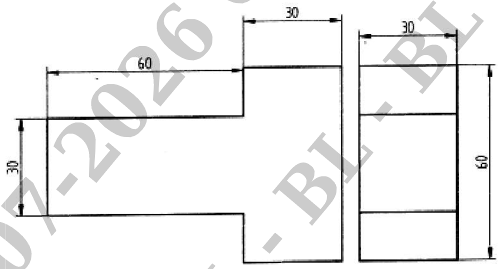
**BCEDK103/203**

## First / Second Semester B.E. Degree Examination, June/July 2026

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **(COMMON TO ALL BRANCHES)** **Max.Marks:100**

**Note:** 1. Answer all four full question
2. Grid sheets may be provided for making preparatory sketches

| Q. No. | | Marks |
|---|---|---|
| | **Module - 1** | |
| 1 | A circular lamina of 30 mm diameter rests on HP such that the surface of the lamina is inclined at 30° to HP and the diameter passing through the corner on which the lamina rests on HP is inclined at 45° to VP. Draw its top and front views in this position. | 20 |
| | **Module - 2** | |
| 2 | A pentagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projection of the pyramid when the axis of the pyramid is inclined to HP at $40^0$ and appears to be inclined to VP at $45^0$. | 30 |
| | **Module - 3** | |
| 3 | Following figure shows the front and side views of solid. Draw the isometric projection of the solid.   | 25 |
| | **Module - 4** | |
| 4 | A square prism of base sides 30 mm and axis length 60 mm is resting on HP with all the vertical faces equally inclined to VP. It is cut by an inclined plane $60^0$ to HP and perpendicular to VP and is passing through a point on the axis at a distance of 50 mm from the base. Obtain the development for the truncated portion of the solid. | 25 |

Examiner 1:
Name:
Signature:

Examiner 2:
Name:
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CBCS SCHEME

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BCHEC102/202

# First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026
## Applied Chemistry for Civil Engineering Stream

Time: 3 hrs. Max. Marks:100

**Note:** *1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*
*3. VTU Formula Hand Book is permitted.*

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| 1 | a. | Write the Composition of Glass. Describe the preparation of soda-lime glass and give any two applications. | 7 | L2 | CO1 |
| | b. | Explain the testing of cement by EDTA Method. | 7 | L3 | CO2 |
| | c. | What are Alloys? Explain the properties and applications of aluminium and its alloys. | 6 | L2 | CO3 |
| | | **OR** | | | |
| 2 | a. | What is the composition of cement? Explain the manufacturing process of cement. | 7 | L2 | CO1 |
| | b. | Define Refectories. Explain its types based on chemical composition. | 7 | L2 | CO2 |
| | c. | Write a note on the Setting and Hardening process of cement. | 6 | L3 | CO3 |
| | | **Module – 2** | | | |
| 3 | a. | Define Photovoltaic Cell. Explain the construction and working of a PV cell. | 7 | L2 | CO1 |
| | b. | Define corrosion. Explain the electrochemical theory of corrosion of steel in concrete. | 7 | L2 | CO2 |
| | c. | Explain :<br>i) Stress corrosion<br>ii) Galvanization. | 6 | L3 | CO3 |
| | | **OR** | | | |
| 4 | a. | Define Battery. Explain the construction and working of Li-ion battery. | 7 | L3 | CO2 |
| | b. | What are Fuel cells? Explain the construction and working of methanol-oxygen fuel cell. | 7 | L2 | CO3 |
| | c. | What is Anodizing? Explain anodizing process. | 6 | L2 | CO1 |



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**Module – 3**

| | | | | | |
|---|---|---|---|---|---|
| 5 | a. | Explain the determination of temporary, permanent and total hardness of water by EDTA method. | 7 | L3 | CO5 |
| | b. | In a COD test, 30.2 $cm^3$ and 14.5 $cm^3$ of 0.04 N FAS solutions are required for a blank and sample titration respectively. The volume of samples used was 25 $cm^3$. Find the COD of the sample solution. | 6 | L2 | CO3 |
| | c. | Explain the synthesis of nano materials by Sol-Gel Method. | 7 | L1 | CO4 |
| | | **OR** | | | |
| 6 | a. | Define COD. Explain the determination of COD of waste water sample. | 7 | L1 | CO3 |
| | b. | Explain the process of forward osmosis and give any two applications. | 7 | L2 | CO4 |
| | c. | What is Desalination? Explain the desalination of water by electrodialysis method. | 6 | L3 | CO5 |

**Module – 4**

| | | | | | |
|---|---|---|---|---|---|
| 7 | a. | What are Polymer Composites? Explain the properties and application of fiber Reinforced Polymer Composites (FRPC). | 7 | L2 | CO3 |
| | b. | Explain the synthesis, properties and applications of Chloro Polyvinyl Chloride (CPVC). | 7 | L2 | CO4 |
| | c. | What is Geopolymer Concrete? Explain the synthesis of geopolymer concrete. | 6 | L3 | CO1 |
| | | **OR** | | | |
| 8 | a. | A polymer sample contains 100, 200, 300 and 400 molecules having molecular mass 1000, 2000, 3000 and 4000 respectively. Calculate the number average and weight average molecular masses of the polymer. | 6 | L1 | CO3 |
| | b. | What are Biodegradable Polymers? Explain the synthesis and applications of polylactic acid. | 7 | L1 | CO1 |
| | c. | What are Adhesives? Give any two properties and applications of epoxy resin. | 7 | L2 | CO4 |



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**Module – 5**

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|---|---|---|---|---|---|
| **9** | a. | Define Phase Rule. With the help of a neat phase diagram, describe the lead-silver system. | **7** | **L1** | **CO2** |
| | b. | Explain the estimation of acid mixture using strong acid by conductometric sensors. | **7** | **L3** | **CO5** |
| | c. | Define the following terms with examples :<br>i) Phase<br>ii) Component<br>iii) Define of freedom. | **6** | **L3** | **CO5** |
| | | **OR** | | | |
| **10** | a. | Explain the Theory and Instrumentation of conductometric sensor. | **7** | **L2** | **CO2** |
| | b. | Explain the principle, instrumentation and the application of potentiometric sensor in the estimation of iron. | **7** | **L3** | **CO5** |
| | c. | Explain the determination of pH of soil sample using pH sensor. | **6** | **L3** | **CO5** |

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CBCS SCHEME

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BCHEE102/202

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Chemistry for EEE Stream

Time: 3 hrs. Max. Marks: 100

***Note:*** 1. ***Answer any FIVE full questions, choosing ONE full question from each module.***
2. ***M : Marks , L: Bloom's level , C: Course outcomes.***
3. ***VTU Formula Hand Book is permitted.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | What are conducting polymers? Explain the mechanism of conduction in polycetylene. | 7 | L1 | CO2 |
| | b. | Define the term electroless plating. Explain the electroless plating of copper. | 7 | L1 | CO1 |
| | c. | Explain the production of electronic grade silicon by Czochralski process. | 6 | L1 | CO2 |
| | | OR | | | |
| Q.2 | a. | Explain the preparation of graphene oxide and mention their properties and applications. | 7 | L2 | CO1 |
| | b. | Calculate the number average and weight average molecular weight of the following 5 molecules having 1000 molecular weight, 7 molecules having 1500 molecular weight and 9 molecules having 2000 molecular weight. | 7 | L3 | CO2 |
| | c. | Explain the production of electronic grade silicon by Float Zone Method. | 6 | L2 | CO1 |
| | | Module – 2 | | | |
| Q.3 | a. | What are Batteries? Explain the construction and working of sodium ion battery? | 7 | L2 | CO1 |
| | b. | What are Fuel cells? Explain the construction and working of methanol-oxygen fuel cell. | 7 | L2 | CO2 |
| | c. | List out any three advantages and disadvantages of solar PV cells. | 6 | L2 | CO1 |
| | | OR | | | |
| Q.4 | a. | What are PV cells? Explain the construction and working of solar PV cells. | 7 | L2 | CO1 |
| | b. | What are Batteries? Explian the classification of batteries with an example. | 7 | L2 | CO1 |
| | c. | Explain the construction and working of Vanadium Redox Flow Battery. | 6 | L2 | CO1 |
| | | Module – 3 | | | |
| Q.5 | a. | Define the term corrosion. Explain the electrochemical theory of corrosion with respect to iron. | 7 | L2 | CO1 |
| | b. | What is meant by differential aeration corrosion? Explain water line corrosion. | 7 | L2 | CO1 |



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| | c. | Mention the advantages of recycling of e-waste. | 6 | L2 | CO1 |
| | | **OR** | | | |
| Q.6 | a. | What is meant by cathodic protection? Explain the sacrificial anode method. | 7 | L2 | CO1 |
| | b. | Explain the steps involved in the extraction of gold from e-waste. | 7 | L2 | CO1 |
| | c. | Mention sources, types and effects of e-waste on environment and human health. | 6 | L2 | CO1 |
| | | **Module – 4** | | | |
| Q.7 | a. | What are Nanomaterials? Mention and explain the size dependent properties of nanomaterials. | 7 | L2 | CO1 |
| | b. | What are Liquid Crystals? Mention and explain the classification of liquid crystal. | 7 | L2 | CO2 |
| | c. | What are Organic Light Emitting Diodes (OLED)? Mention any two properties and applications of OLED. | 6 | L2 | CO1 |
| | | **OR** | | | |
| Q.8 | a. | Explain the preparation of nano materials by sol-gel method. | 7 | L2 | CO1 |
| | b. | Mention the properties and applications of nanofibers and nanophotonics. | 7 | L2 | CO1 |
| | c. | Mention the properties and applications of Quantum Light Emitting Diodes (QLED). | 6 | L2 | CO1 |
| | | **Module – 5** | | | |
| Q.9 | a. | What are Reference Electrodes? Explain the construction and working of Calomel electrode. | 7 | L2 | CO1 |
| | b. | What are Concentration Cells? Explain the construction and working of concentration cell with an example. | 7 | L2 | CO1 |
| | c. | Explain the working principle and instrumentation of colorimetry. | 6 | L2 | CO1 |
| | | **OR** | | | |
| Q.10 | a. | What are conductometric sensors? Explain the estimation of weak acid verse strong base using conductometry. | 7 | L2 | CO1 |
| | b. | What are ion selective electrodes? Explain the determination of pH using glass electrode. | 7 | L2 | CO1 |
| | c. | Write a note on Optical Sensors. | 6 | L2 | CO1 |

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BCHEM102/202

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Applied Chemistry for ME Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. VTU Formula Handbook is permitted.***
***3. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Define Calorific value. Explain principle , construction and working of bomb calorimeter to determine GCV and NCV of a solid fuel. | 7 | L2 | CO1 |
| | b. | What are green fuels? Explain the synthesis of biodiesel by transesterification. Write any four applications. | 7 | L2 | CO1 |
| | c. | Solar energy conversion is considered as a sustainable method for power generation. Apply the concept of energy conversion and highlight the construction , working and application of PV cells, with a neat labeled diagram. | 6 | L3 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | 0.85g of coal sample (carbon 90% , $H_2$ 5% and ash 5%) was subjected to combustion in a bomb calorimeter. Mass of water taken in the calorimeter was 2000 g and the water equivalent of calorimeter was 600 g. The rise in temperature was 3.5°C. Calculate the gross and net calorific value of the sample. (Given , specific heat of water = 4.187 kJ $kg^{-1}$/°C) | 7 | L3 | CO1 |
| | b. | Describe the construction and working of Lithium – ion battery and mention any two applications. | 7 | L2 | CO1 |
| | c. | Describe the construction and working of methanol oxygen fuel cell. | 6 | L2 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Rusting of iron is an electrochemical process, which is an example for atmospheric corrosion. Apply the concept of corrosion and discuss the theory and corrosion mechanism involved in rusting of iron. | 7 | L3 | CO2 |
| | b. | What is Stress Corrosion? Explain the process of stress corrosion taking caustic embrittlement as an example. | 7 | L2 | CO2 |
| | c. | What do you mean by metal finishing? Highlight any five technological importances. | 6 | L2 | CO2 |
| | | **OR** | | | |

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|---|---|---|---|---|---|
| Q.4 | a. | What is CPR? A thickness of alloy sheet of area 100 $inch^2$ is exposed to air near the ocean. After one year period it was found to experience a weight loss of 35 g due to corrosion. If the density of alloy is 8.4 $g/cm^3$, calculate CPR in mmpy and mpy. | 7 | L3 | CO2 |
| | b. | What is Electroplating? Explain electroplating of chromium as hard and decorative coatings. | 7 | L2 | CO2 |
| | c. | Explain the process of galvanization and its applications. | 6 | L2 | CO2 |
| **Module – 3** | | | | | |
| Q.5 | a. | In a polymer sample of polystyrene is prepared by mixing three monodisperse samples in the following proportions. 1 g of 10,000 molecular weight , 2 g of 50,000 molecular weight and 2 g of 100,000 molecular weight. Determine number average and weight average molecular weight. | 7 | L3 | CO3 |
| | b. | Summarize the synthesis , properties and applications of PMMA. | 7 | L2 | CO3 |
| | c. | Explain metal matrix composite with an example. Explain any four properties and applications of metal matrix composites. | 6 | L2 | CO3 |
| **OR** | | | | | |
| Q.6 | a. | Polymer sample is made up of 10 polymer molecules with molar mass of 1000 g/mol and 30 molecules with molar mass of 2000 g/mol. Calculate the number average and weight average of molar mass of polymer. | 7 | L3 | CO3 |
| | b. | Explain the synthesis, properties and application of poly vinyl chloride. | 7 | L2 | CO3 |
| | c. | What are lubricants? Explain any four properties and applications of lubricants. | 6 | L2 | CO3 |
| **Module – 4** | | | | | |
| Q.7 | a. | Discuss the lead – silver two component system along with phase diagram. | 7 | L2 | CO4 |
| | b. | Explain the principle , instrumentation and applications of potentiometric titration. | 7 | L2 | CO4 |
| | c. | Describe the construction and working of pH sensor electrode. | 6 | L2 | CO4 |
| **OR** | | | | | |
| Q.8 | a. | Define Phase Rule. Explain the following terms with an example phase, components and degree of freedom. | 7 | L2 | CO4 |
| | b. | Explain the instrumentation and application of colorimetric sensors in the estimation of copper. | 7 | L2 | CO4 |
| | c. | Explain the determination of pH of beverages using glass electrode. | 6 | L2 | CO4 |



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| **Module – 5** | | | | | |
| **Q.9** | **a.** | Define an Alloy. Explain the composition , properties and application of stainless steel. | **7** | **L2** | **CO5** |
| | **b.** | What are nano materials? Explain any three size dependent properties of nano materials. | **7** | **L2** | **CO5** |
| | **c.** | Explain the properties and applications of carbon nanotubes. | **6** | **L2** | **CO5** |
| **OR** | | | | | |
| **Q.10** | **a.** | What is Alnico? Explain composition , properties and applications of Alnico. | **7** | **L2** | **CO5** |
| | **b.** | What are Perovskites? Mention any four properties and applications of perovskites. | **7** | **L2** | **CO5** |
| | **c.** | Explain the synthesis of nano materials by sol – gel method. | **6** | **L2** | **CO5** |

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CBCS SCHEME

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BCHEM102/202

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Applied Chemistry for ME Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. VTU Formula Handbook is permitted.***
***3. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Define Calorific value. Explain principle , construction and working of bomb calorimeter to determine GCV and NCV of a solid fuel. | 7 | L2 | CO1 |
| | b. | What are green fuels? Explain the synthesis of biodiesel by transesterification. Write any four applications. | 7 | L2 | CO1 |
| | c. | Solar energy conversion is considered as a sustainable method for power generation. Apply the concept of energy conversion and highlight the construction , working and application of PV cells, with a neat labeled diagram. | 6 | L3 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | 0.85g of coal sample (carbon 90% , $H_2$ 5% and ash 5%) was subjected to combustion in a bomb calorimeter. Mass of water taken in the calorimeter was 2000 g and the water equivalent of calorimeter was 600 g. The rise in temperature was 3.5°C. Calculate the gross and net calorific value of the sample. (Given , specific heat of water = 4.187 kJ $kg^{-1}$/°C) | 7 | L3 | CO1 |
| | b. | Describe the construction and working of Lithium – ion battery and mention any two applications. | 7 | L2 | CO1 |
| | c. | Describe the construction and working of methanol oxygen fuel cell. | 6 | L2 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Rusting of iron is an electrochemical process, which is an example for atmospheric corrosion. Apply the concept of corrosion and discuss the theory and corrosion mechanism involved in rusting of iron. | 7 | L3 | CO2 |
| | b. | What is Stress Corrosion? Explain the process of stress corrosion taking caustic embrittlement as an example. | 7 | L2 | CO2 |
| | c. | What do you mean by metal finishing? Highlight any five technological importances. | 6 | L2 | CO2 |
| | | **OR** | | | |

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|---|---|---|---|---|---|
| Q.4 | a. | What is CPR? A thickness of alloy sheet of area 100 $inch^2$ is exposed to air near the ocean. After one year period it was found to experience a weight loss of 35 g due to corrosion. If the density of alloy is 8.4 $g/cm^3$, calculate CPR in mmpy and mpy. | 7 | L3 | CO2 |
| | b. | What is Electroplating? Explain electroplating of chromium as hard and decorative coatings. | 7 | L2 | CO2 |
| | c. | Explain the process of galvanization and its applications. | 6 | L2 | CO2 |
| | | **Module – 3** | | | |
| Q.5 | a. | In a polymer sample of polystyrene is prepared by mixing three monodisperse samples in the following proportions. 1 g of 10,000 molecular weight , 2 g of 50,000 molecular weight and 2 g of 100,000 molecular weight. Determine number average and weight average molecular weight. | 7 | L3 | CO3 |
| | b. | Summarize the synthesis , properties and applications of PMMA. | 7 | L2 | CO3 |
| | c. | Explain metal matrix composite with an example. Explain any four properties and applications of metal matrix composites. | 6 | L2 | CO3 |
| | | **OR** | | | |
| Q.6 | a. | Polymer sample is made up of 10 polymer molecules with molar mass of 1000 g/mol and 30 molecules with molar mass of 2000 g/mol. Calculate the number average and weight average of molar mass of polymer. | 7 | L3 | CO3 |
| | b. | Explain the synthesis, properties and application of poly vinyl chloride. | 7 | L2 | CO3 |
| | c. | What are lubricants? Explain any four properties and applications of lubricants. | 6 | L2 | CO3 |
| | | **Module – 4** | | | |
| Q.7 | a. | Discuss the lead – silver two component system along with phase diagram. | 7 | L2 | CO4 |
| | b. | Explain the principle , instrumentation and applications of potentiometric titration. | 7 | L2 | CO4 |
| | c. | Describe the construction and working of pH sensor electrode. | 6 | L2 | CO4 |
| | | **OR** | | | |
| Q.8 | a. | Define Phase Rule. Explain the following terms with an example phase, components and degree of freedom. | 7 | L2 | CO4 |
| | b. | Explain the instrumentation and application of colorimetric sensors in the estimation of copper. | 7 | L2 | CO4 |
| | c. | Explain the determination of pH of beverages using glass electrode. | 6 | L2 | CO4 |



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| **Module – 5** | | | | | |
| **Q.9** | **a.** | Define an Alloy. Explain the composition , properties and application of stainless steel. | **7** | **L2** | **CO5** |
| | **b.** | What are nano materials? Explain any three size dependent properties of nano materials. | **7** | **L2** | **CO5** |
| | **c.** | Explain the properties and applications of carbon nanotubes. | **6** | **L2** | **CO5** |
| **OR** | | | | | |
| **Q.10** | **a.** | What is Alnico? Explain composition , properties and applications of Alnico. | **7** | **L2** | **CO5** |
| | **b.** | What are Perovskites? Mention any four properties and applications of perovskites. | **7** | **L2** | **CO5** |
| | **c.** | Explain the synthesis of nano materials by sol – gel method. | **6** | **L2** | **CO5** |

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# CBCS SCHEME

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BCHES102/202

## First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Applied Chemistry for CSE Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. VTU Formula Hand Book is permitted.***
***3. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Explain the principle, working and applications of conductometric sensors and Electrochemical sensors. | 7 | L2 | CO1 |
| | b. | Explain Electrochemical gas sensor for (principle and working) i) $SO_X$ ii) $NO_X$ | 7 | L2 | CO2 |
| | c. | Explain construction, working and applications of Li-Ion batteries. | 6 | L1 | CO2 |
| | | OR | | | |
| Q.2 | a. | Explain the principle, working and application of optical sensors, and explain disposal sensors. | 7 | L2 | CO1 |
| | b. | Explain Electrochemical sensors for Dissolved Oxygen (DO) and the detection of pharmaceuticals. | 7 | L2 | CO1 |
| | c. | What are Batteries? Explain the construction, working and application of quantum dot sensitized solar cells. | 6 | L1 | CO2 |
| | | Module – 2 | | | |
| Q.3 | a. | What are Memory devices? Explain the classification of electronic memory devices with examples. | 7 | L2 | CO1 |
| | b. | Explain the types of organic memory devices by taking P-type and n-type semiconductor materials. | 7 | L3 | CO2 |
| | c. | Explain properties and applications of Quantum dot Light Emitting Diodes (QLED's). | 6 | L2 | CO1 |



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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.4** | **a.** | What are photoactive and electro active materials and explain their working principle in display system. | **6** | **L2** | **CO1** |
| | **b.** | Mention any four properties and applications of LC – display. | **7** | **L2** | **CO1** |
| | **c.** | What are Nanomaterials? Explain any four properties and applications of polythiophenes suitable for optoelectronic devices. | **7** | **L3** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Define Corrosion and explain electrochemical theory of corrosion, taking iron as an example. | **7** | **L3** | **CO2** |
| | **b.** | Explain :<br>i) Differential Metal Corrosion<br>ii) Differential Aeration Corrosion | **6** | **L2** | **CO1** |
| | **c.** | What are Ion Selective Electrode? Explain construction, working and applications of glass electrode. | **7** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.6** | **a.** | Explain corrosion control by using<br>i) Galvanization<br>ii) Sacrificial Anode Method | **6** | **L2** | **CO1** |
| | **b.** | What are Reference Electrodes? Explain construction, working and application of calomel electrode. | **7** | **L2** | **CO1** |
| | **c.** | What is CPR? A thickness of brass sheet of area 400 $inch^2$ is exposed to air near the ocean, after two years period it was found to experience a weight loss of 375 g due to corrosion if the density of brass is 8.73 $g/cm^3$. Calculate the CPR in mm/year and mmpy. | **7** | **L2** | **CO1** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | What are Number average and Wt average molecular mass?<br>A polymer has the following composition, 100 molecular mass of 1000 g/mol, 200 molecules of molecular mass 2000 g/mol and 500 molecular mass 5000 g/mol. Calculate the number and wt average mol. wt. | **7** | **L2** | **CO1** |



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|---|---|---|---|---|---|
| | b. | Explain preparation, properties and applications of Kevlar. | 6 | L2 | CO1 |
| | c. | Explain construction, working of solar photo voltaic cell and mention its advantages. | 7 | L2 | CO1 |
| | | **OR** | | | |
| Q.8 | a. | Explain the synthesis and conducting mechanism of polyactylene and mention its application. | 7 | L2 | CO1 |
| | b. | Explain generation of hydrogen by electrolysis of water and its advantages. | 6 | L2 | CO1 |
| | c. | Explain photovoltaic cell and mention advantages and disadvantages of solar photovoltaic cell. | 7 | L2 | CO1 |
| | | **Module – 5** | | | |
| Q.9 | a. | Explain the recycling of E-waste. | 6 | L2 | CO1 |
| | b. | Explain the ill effects of toxic materials used in manufacturing of electrical and electronic products. | 7 | L2 | CO1 |
| | c. | Explain extraction of Gold from e-waste. | 7 | L2 | CO1 |
| | | **OR** | | | |
| Q.10 | a. | Mention the sources of e-waste and explain the need for e-waste management. | 6 | L2 | CO1 |
| | b. | Explain the recycling of e-waste by hydrometallurgical method. | 7 | L1 | CO2 |
| | c. | Write a note on, the role of stakeholders, for example, producers, consumers, recyclers, and statutory bodies. | 7 | L2 | CO1 |

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BCHES102/202

## First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Applied Chemistry for CSE Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. VTU Formula Hand Book is permitted.***
***3. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Explain the principle, working and applications of conductometric sensors and Electrochemical sensors. | 7 | L2 | CO1 |
| | b. | Explain Electrochemical gas sensor for (principle and working) i) $SO_X$ ii) $NO_X$ | 7 | L2 | CO2 |
| | c. | Explain construction, working and applications of Li-Ion batteries. | 6 | L1 | CO2 |
| | | OR | | | |
| Q.2 | a. | Explain the principle, working and application of optical sensors, and explain disposal sensors. | 7 | L2 | CO1 |
| | b. | Explain Electrochemical sensors for Dissolved Oxygen (DO) and the detection of pharmaceuticals. | 7 | L2 | CO1 |
| | c. | What are Batteries? Explain the construction, working and application of quantum dot sensitized solar cells. | 6 | L1 | CO2 |
| | | Module – 2 | | | |
| Q.3 | a. | What are Memory devices? Explain the classification of electronic memory devices with examples. | 7 | L2 | CO1 |
| | b. | Explain the types of organic memory devices by taking P-type and n-type semiconductor materials. | 7 | L3 | CO2 |
| | c. | Explain properties and applications of Quantum dot Light Emitting Diodes (QLED's). | 6 | L2 | CO1 |



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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.4** | **a.** | What are photoactive and electro active materials and explain their working principle in display system. | **6** | **L2** | **CO1** |
| | **b.** | Mention any four properties and applications of LC – display. | **7** | **L2** | **CO1** |
| | **c.** | What are Nanomaterials? Explain any four properties and applications of polythiophenes suitable for optoelectronic devices. | **7** | **L3** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Define Corrosion and explain electrochemical theory of corrosion, taking iron as an example. | **7** | **L3** | **CO2** |
| | **b.** | Explain :<br>i) Differential Metal Corrosion<br>ii) Differential Aeriation Corrosion | **6** | **L2** | **CO1** |
| | **c.** | What are Ion Selective Electrode? Explain construction, working and applications of glass electrode. | **7** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.6** | **a.** | Explain corrosion control by using<br>i) Galvanization<br>ii) Sacrificial Anode Method | **6** | **L2** | **CO1** |
| | **b.** | What are Reference Electrodes? Explain construction, working and application of calomel electrode. | **7** | **L2** | **CO1** |
| | **c.** | What is CPR? A thickness of brass sheet of area 400 inch$^2$ is exposed to air near the ocean, after two years period it was found to experience a weight loss of 375 g due to corrosion if the density of brass is 8.73 g/cm$^3$. Calculate the CPR in mm/year and mmpy. | **7** | **L2** | **CO1** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | What are Number average and Wt average molecular mass?<br>A polymer has the following composition, 100 molecular mass of 1000 g/mol, 200 molecules of molecular mass 2000 g/mol and 500 molecular mass 5000 g/mol. Calculate the number and wt average mol. wt. | **7** | **L2** | **CO1** |



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|---|---|---|---|---|---|
| | b. | Explain preparation, properties and applications of Kevlar. | 6 | L2 | CO1 |
| | c. | Explain construction, working of solar photo voltaic cell and mention its advantages. | 7 | L2 | CO1 |
| | | **OR** | | | |
| Q.8 | a. | Explain the synthesis and conducting mechanism of polyactylene and mention its application. | 7 | L2 | CO1 |
| | b. | Explain generation of hydrogen by electrolysis of water and its advantages. | 6 | L2 | CO1 |
| | c. | Explain photovoltaic cell and mention advantages and disadvantages of solar photovoltaic cell. | 7 | L2 | CO1 |
| | | **Module – 5** | | | |
| Q.9 | a. | Explain the recycling of E-waste. | 6 | L2 | CO1 |
| | b. | Explain the ill effects of toxic materials used in manufacturing of electrical and electronic products. | 7 | L2 | CO1 |
| | c. | Explain extraction of Gold from e-waste. | 7 | L2 | CO1 |
| | | **OR** | | | |
| Q.10 | a. | Mention the sources of e-waste and explain the need for e-waste management. | 6 | L2 | CO1 |
| | b. | Explain the recycling of e-waste by hydrometallurgical method. | 7 | L1 | CO2 |
| | c. | Write a note on, the role of stakeholders, for example, producers, consumers, recyclers, and statutory bodies. | 7 | L2 | CO1 |

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CBCS SCHEME

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BCV306C

# Third Semester B.E./B.Tech. Degree Examination, June/July 2026
# Sustainable Design Concepts for Building Services

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Define Sustainability. With sketch explain the three dimensions of sustainability. | 10 | L2 | CO1 |
| | b. | With regards to energy, differentiate between :<br>(i) Primary and Secondary Energy<br>(ii) Commercial and Non-commercial Energy<br>(iii) Renewable and Non-renewable Energy | 10 | L1 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | What is Carbon Foot Print? List and explain the effects of carbon foot print. | 10 | L2 | CO1 |
| | b. | List and explain the steps involved in Net Zero Buildings Construction. | 10 | L2 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Differentiate between conduction, convection and radiation. | 10 | L1 | CO2 |
| | b. | Define the term "Acoustic". What are the requirements of acoustic? | 10 | L1 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Write a note on Indoor Air Quality Management. | 10 | L1 | CO2 |
| | b. | Define Visual Comfort in buildings. Explain steps to improve visual comfort. | 10 | L2 | CO2 |
| | | **Module – 3** | | | |
| Q.5 | a. | Explain energy efficiency and building envelop. | 10 | L2 | CO3 |
| | b. | What is Daylighting? Tabulate the requirements of daylighting as per ECBC 2017. | 10 | L2 | CO3 |
| | | **OR** | | | |
| Q.6 | a. | List the reasons to perform energy audit. Also discuss the steps involved in audit. | 10 | L2 | CO3 |
| | b. | Outline the process of Water Resource Management. | 10 | L3 | CO3 |
| | | **Module – 4** | | | |
| Q.7 | a. | What is Green Product Certification? List the benefits. | 10 | L1 | CO4 |
| | b. | Elaborate the features of sustainable building materials. | 10 | L3 | CO4 |
| | | **OR** | | | |
| Q.8 | a. | Write a note on Low-carbon cement and Zero emission bricks. | 10 | L1 | CO4 |
| | b. | Explain the steps involved in lean construction practices. | 10 | L2 | CO4 |
| | | **Module – 5** | | | |
| Q.9 | a. | Explain LEED and BREEAM certification standards. | 10 | L2 | CO5 |
| | b. | List the criterias of Green Building Certification. | 10 | L1 | CO5 |
| | | **OR** | | | |
| Q.10 | a. | List and explain IGBC performance parameters. | 10 | L2 | CO5 |
| | b. | Write a note on GRIHA rating system. | 10 | L2 | CO5 |

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CBCS SCHEME

BCV358D

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Question Paper Version : A

# Third Semester B.E./B.Tech. Degree Examination, June/July 2026
# Personality Development for Civil Engineers

Time: 1 hr. Max. Marks: 50

## INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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1. Communication is a _________process in which there is an exchange and chain of ideas towards a mutually acceptable direction.
a) One-way b) Two-way
c) Three-way d) Four-way

2. _________ is the of oral, unwritten words and is an essential part of interacting with others,
a) Informal communication b) Non-verbal communication
c) Verbal communication d) Formal communication

3. Organizations use ________ communication to announce information and provide instructions to subordinates by superiors.
a) Written b) Oral
c) Non-verbal d) Verbal

4. Reading is a _________which involves visual perception as well as mental decoding of the symbols.
a) Cognitive process b) Behavioural process
c) Reasoning process d) None of these

5. A resume is drafted with an objective to highlight your______.
a) Education and experience to the potential employer
b) Achievements
c) Qualification
d) Skills



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**6.** ___________ is the fastest type of reading used when we wish to find some specific information about something quickly by glancing through the text.
a) Skimming
b) Scanning
c) Extensive reading
d) Detailed reading

**7.** Disadvantage of informal communication is,
a) Time consuming
b) Fast speed
c) Less reliable
d) Spread of rumours

**8.** How many types of formal communication are there?
a) 1
b) 2
c) 4
d) 5

**9.** Grapevine communication is another name of,
a) Probability communication
b) Upward communication
c) Formal communication
d) Informal communication

**10.** Good ______are important workplace skills that help you communicate or talk will all types of people, including managers, coworkers and customers.
a) Technical skills
b) Time management skills
c) Interpersonal skills
d) Organizational skills

**11.** Is being organized a hard skill or soft skill?
a) Hard skill
b) Soft skill

**12.** Friendly polite, respect for others, ASIS for feedback, take constructive criticism.
a) Foundational skills
b) Interpersonal skills
c) Team work
d) Communication skill

**13.** Socializing with people at work will help to strengthen your.
a) Muscles
b) Skills
c) Ideas
d) Relationship

**14.** Interpersonal skills are also known as,
a) Worthless skills
b) Skills beyond reach
c) Rarely used skills
d) Soft skill

**15.** You show understanding of others by,
a) asking about others interest
b) being open to suggestions and change
c) trying to see things from their points of view
d) All of these

**16.** Example of a soft skill,
a) Sweeping
b) Washing tables
c) Team work
d) Weaving uniform

**17.** Working without being told, being self motivated and being the first to begin work shows________.
a) Persistance
b) Motivation
c) Initiative
d) Leadership



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**18.** Teamwork involves, which one of these?
a) Building relationships
b) Important skills and experiences
c) Working with other people
d) All of the these

**19.** Sea urchins are quite, alone and withdrawn their behavior type could be classified as,
a) Involver
b) Quite submissive
c) Social submissive
d) Aggressive

**20.** The most reliable type of communication is,
a) Informal communication
b) Non-verbal communication
c) Formal communication
d) Group communication

**21.** Type of communication barriers are,
a) 4 b) 5 c) 6 d) 7

**22.** The word interview is derived from,
a) Latin b) French c) German d) English

**23.** What should you focus on during the interview?
a) The salary you want
b) How much vacation time you want?
c) What you can offer company
d) What the company can offer you?

**24.** How much stages of interview are?
a) Two b) Three c) Five d) Six

**25.** Which one is the type of semi-structural interview?
a) Panel interview
b) Case study
c) on the spot
d) None of these

**26.** What are the successful strategies for interview?
a) Personal rapport
b) Good eye contact
c) Clear idea of the key point
d) All of these

**27.** In depth interview are known as ________.
a) Board interview
b) One-on-One interview
c) Case study
d) None of these

**28.** In group interview the interviewer can judge the behavior of every candidate according to,
a) Presentation b) Intelligence c) Both (a) and (b) d) None of these

**29.** The presenter act as the,
a) Delivery of the information
b) Medium of the information
c) Advocate of the information
d) Supporter of the information

**30.** Reading out a presentation is,
a) not allowed b) allowed c) helpful d) dull

**31.** The key of success is __________.
a) Practice b) Preparation c) Effort d) Both (a) and (b)

**32.** When giving a presentation in front of an audience you should do all of the following except for _____?
a) Speak loud and clear
b) Provide hand out if needed
c) Dress Professionally
d) Look at the screen not the audience

**33.** A good technique to get your audience attention,
a) a statement made to surprise
b) asking questions
c) asking introduction to the audience
d) none of these

**34.** Reading is a _____which involves visual perception as well as mental decoding of the symbols.
a) Cognitive process
b) Behavioural process
c) Reasoning process
d) None of these

**35.** Arriving or doing something at the expected or planned time is,
a) Self discipline
b) Punctuality
c) Character
d) Attendance

**36.** What is the primary purpose of an informal interview?
a) gather information about target company
b) ask for reference to a job
c) ask for a job
d) All of these

**37.** A person works for someone of a company?
a) Demonstrate
b) Employee
c) Employer
d) Employability

**38.** _____ is increasing leadership rapidly?
a) Strategy
b) Command
c) Control
d) Getting others to follow

**39.** _____ are the approaches to the study of leadership which emphasizes the personality of leader.
a) Contingency theories
b) Group theories
c) Trait theories
d) Inspirational theories

**40.** Needs, setting standards and maintaining discipline and appointing sub leaders according to Adairs approach, called as :
a) Work functions
b) Task functions
c) Individual functions
d) Team functions

**41.** _____used the terms "employee-centered" and "production centered" to describe leader behavior :
a) Blake and McCanse
b) Ficdler
c) McGregor
d) Likert

**42.** An essential and typical identifying characteristic of creativity is,
a) Convergent thinking
b) Originality of ideas
c) Preference for repeating tasks
d) Centration in thought



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**43.** An identifying feature of creativity is :
a) Conformity
b) Convergent thinking
c) Divergent thinking
d) None of these

**44.** Which one of the following is an essential characteristic of creativity?
a) Divergent thinking
b) Impulsiveness
c) Centration in thought
d) Convergent thinking

**45.** Communication helps officials to ______the employees.
a) Eliminate
b) Motivate
c) Threaten
d) Appraise

**46.** ________ means checking whether the earlier stages of reading were followed promptly or not.
a) survey
b) question
c) read
d) review

**47.** _______ should be provided in a resume only on request.
a) Telephone number
b) Reference
c) Educational qualification
d) Work experience

**48.** _______ is a document that can be used as an evident in legal cases.
a) notice
b) minutes of meeting
c) agenda
d) memo

**49.** When one participant in a dispute is primarily concerned with his or her own demands and interests and disregards the needs and opinions of the other, the conflict is reformed to as :
a) forcing
b) accommodating
c) collaborating
d) compromising

**50.** Which one of the following is a conflict simulation technique?
a) Expansion of resources
b) Compromise
c) Bringing in outsiders
d) Authoritative command

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CBCS SCHEME

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BCV405D

# Fourth Semester B.E./B.Tech. Degree Examination, June/July 2026

## Watershed Management

Time: 3 hrs. Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Define Watershed and explain principles of Watershed Management. | **10** | **L2** | **CO1** |
| | **b.** | Explain conjunctive use for surface and groundwater for watershed management. | **10** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Explain basic concepts of hydrology and water availability. | **10** | **L2** | **CO1** |
| | **b.** | Explain importance of groundwater in watershed management. | **10** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain Integrated Water Resource System and its importance. | **10** | **L2** | **CO2** |
| | **b.** | Explain Morphometric analysis and its methods. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain Drainage Basin (River basin) and explain its types with diagrams. | **10** | **L2** | **CO2** |
| | **b.** | Explain watershed management practices in Arid and Semi Arid region. | **10** | **L2** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | What is water conservation? Explain importance water conservation. | **10** | **L2** | **CO3** |
| | **b.** | Explain the concept of recycle and reuse with respect to waste water. | **10** | **L2** | **CO3** |
| | | **OR** | | | |
| **Q.6** | **a.** | Explain Rain water harvesting methods. | **10** | **L2** | **CO3** |
| | **b.** | Define aquifer and its types. Write the importance of structure for rainwater harvesting. | **10** | **L2** | **CO3** |



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## Module – 4

| | | | | | |
|---|---|---|---|---|---|
| **Q.7** | **a.** | Explain Sustainable Integrated Watershed Management. | **10** | **L2** | **CO4** |
| | **b.** | Explain best Agricultural practices and Integrated Farming in Watershed Approach. | **10** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Define soil erosion. Explain soil conversation techniques. | **10** | **L2** | **CO4** |
| | **b.** | Explain Natural Resources Management Techniques. | **10** | **L2** | **CO4** |

## Module – 5

| | | | | | |
|---|---|---|---|---|---|
| **Q.9** | **a.** | Explain Application of Remote Sensing and GIS in watershed management. | **10** | **L2** | **CO5** |
| | **b.** | Define watershed characteristics of coastal regions in watershed management. | **10** | **L2** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Define Coastal Aquifer and discuss its types. | **10** | **L2** | **CO5** |
| | **b.** | Explain role of decision support system in watershed management. | **10** | **L2** | **CO5** |

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CBCS SCHEME

**BCV456C**

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**Question Paper Version : A**

# Fourth Semester B.E./B.Tech. Degree Examination, June/July 2026
# Electronic Waste Management - Issues and Challenges

Time: 1 hr. Max. Marks: 50

## INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
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5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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1. Which of the following e – waste estimation method is more frequently used?
   a) Factor models b) Time series analysis
   c) Input – output analysis d) Disposal related analysis

2. Proper management of e – waste can provide us
   a) Social benefit b) Economic benefit
   c) Environmental benefit d) All of these

3. Among the e – waste generated due to small house hold appliances the major waste component is of _____
   a) Ferrous metal b) Non ferrous metal c) Glass d) Plastics

4. Out of the following e – waste estimation methods, which one is the least explored method due to complexity and high uncertainty in long – term pattern?
   a) Factor models b) Time series analysis
   c) Input – output analysis d) Disposal related analysis

5. Which of the following State in India is the lowest contributor to E – Waste quantity in the Country?
   a) West Bengal b) Madhya Pradesh c) Punjab d) Maharashtra

6. Which factors determine the success of e – waste collection program?
   a) Cost - effectiveness b) Accessibility
   c) Public - Awareness d) All of these

7. Which of the following elements / is / are cause of e – waste?
   a) Lead b) Cadmium
   c) Beryllium or Brominates flame retardants d) All of these



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**8.** What does the 'WEEE' directive stand for?
a) Waste Electrical and Electronic Equipment
b) Waste Environmental Electronic Equipment
c) Waste Emissions and Electronic Equipment
d) World Energy and Environmental Equipment

**9.** How are Electronic items dangerous?
a) They degrade over time, releasing concern using chemical into the air
b) Lead and mercury in components can cause metabolic charges in users
c) They leach toxic metals in landfills and into ground water
d) They create electro magnetic fields that interfere with animal reproduction

**10.** Which toxic compound is not found in e – waste?
a) Mercury b) Cadmium c) Neon d) Lead

**11.** The Cadmium from one mobile phone battery is enough to pollute how much volume of water approximately.
a) 200 $m^3$ b) 300 $m^3$ c) 600 $m^3$ d) 900 $m^3$

**12.** Which of the following pollutant causes Beryllicosis?
a) Berylium b) Barium
c) Brominated Flame Retardant d) Arsenic

**13.** Which of the following pollutant is / are radioactive?
a) Silver b) Zinc
c) Americium d) Chloro Fluoro carbon

**14.** Which of the following is the lowest per capital e – waste generating state in India?
a) Bihar b) Delhi c) Tamil Nadu d) West Bengal

**15.** Globally only 15 – 20 % of e – waste is recycled while the rest is dumped into developing Countries.
a) True b) False

**16.** What does e – waste stand for?
a) Environment Waste b) Electronic Waste
c) Equipment Waste d) None of these

**17.** What are the health hazards which can be caused by E – Waste?
a) Lung cancer b) DNA damage c) Brain d) All of these

**18.** Which country produces the most e – waste per year?
a) India b) China c) USA d) France

**19.** How much lead is in the cathode ray tube (CRT), commonly called a picture tube?
a) 1.75 pounds b) Between 2 and 3 pounds
c) 19 pounds d) Between 4 and 7 pounds

**20.** The most valuable part of a PC or TV is the
a) Lead in the CRT
b) Circuit boards that contain silver and gold
c) Copper in the cathode yoke
d) None of these



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**21.** Which of the following is the correct related to E – waste?
a) E – waste is a popular , informal name for Electronic products nearing the end of their "Useful life".
b) Computers, Television , VCRs, Stereos , Copiers and Fax machines are common Electronic products.
c) Both A and B
d) None of these

**22.** What percentage of e – waste is typically recycled globally?
a) 10 % b) 20 % c) 40 % d) 60 %

**23.** Which of the hazardous pollutant occurs in plastic?
a) Lithium b) PCBs c) Lead d) Copper

**24.** Nickel is released from ____
a) Display b) Calculator c) Alloy d) Transformers

**25.** In 2006, the IAER projected that ______ Electronic and Electrical appliances would become e – waste by 2010.
a) 1 Billion b) 2 Billion c) 3 Billion d) 4 Billion

**26.** According to the Comptroller and Auditor – General's (CAG) report , what is the amount of e – waste generated annually?
a) 4 L T b) 5 L T c) 6 L T d) 7 L T

**27.** Which is the hazardous pollutant released from LED's?
a) Arsenic b) Barium c) Cobalt d) Cadmium

**28.** What is the hazardous pollutant released from Electron tubes?
a) Arsenic b) Barium c) Cobalt d) Cadmium

**29.** Which is the hazardous pollutant released from batteries?
a) Arsenic b) Barium c) Cobalt d) Cadmium

**30.** Which is the hazardous pollutant released from calculators?
a) Lithium b) Mercury c) Lead d) Copper

**31.** Open burning to recover copper wires causes ____
a) Silicosis b) Lung - disease
c) Kidney inflammation d) PAM exposure

**32.** Which organization is responsible of setting standards for e – waste management?
a) EPA (Environmental Protection Agency)
b) FDA (Food and Drug Administration)
c) WHO (World Health Organization)
d) NASA (National Aeronautics and Space Administration)

**33.** Which of the following metal affects mental development in children?
a) Lead b) Barium c) Zinc d) Silver



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**34.** Which Authority is responsible for implementing and enforcing e – waste management rules in India?
a) Ministry of Electronic and Information Technology (MEITY)
b) Ministry of Environment , Forest and Climate Change (MOEFCC)
c) Central Pollution Control Board (CPCB)
d) All of these

**35.** The informal sector accounts for 5% e – waste recycling , 95% e –waste reaches to an authorized recycler.
a) True b) False

**36.** Electronic waste varies considerably with its age, origin and manufactures.
a) True b) False

**37.** If the CRT is crushed and burned , it does not emit toxic fumes into the air.
a) True b) False

**38.** E – Waste should be considered as resources and requires to be used in an efficient and sustainable way.
a) True b) False

**39.** Which of the following is an example of large appliances e – waste category?
a) Mobile phones b) Laptops c) Refrigerators d) MP3 players

**40.** Which practice can individuals adopt to contribute to e – waste reduction?
a) Upgrading to new devices frequently
b) Donating or selling old Electronics
c) Throwing Electronics in regular trash bins
d) Ignoring old Electronics

**41.** Which type of e – waste is commonly referred to as "white good"?
a) Large appliances b) Small appliances
c) IT and Telecommunication Equipment d) Consumer Electronics

**42.** What does "Urban Mining" refer in context of the e – waste?
a) Extracting Minerals from Urban landscapes
b) Recovering valuable metals from electronic waste
c) Digging for metals in City parks
d) None of these

**43.** What is the first step in the e – waste recycling process?
a) Shredding b) Sorting c) Melting d) Crushing

**44.** What is the primary purpose of e – waste recycling?
a) To reduce the need for raw materials
b) To generate revenue for recycling companies
c) To increase landfill space
d) To create more Electronic products

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**45.** Which method is most Environmentally friendly for e – waste disposal?
a) Land filling
b) Incineration
c) Recycling
d) Exporting to developing Countries

**46.** What is the deadline for achieving the targets of EPR under the E – Waste (Management) Rules, 2016?
a) 2020
b) 2022
c) 2025
d) 2030

**47.** Which of the following is NOT considered a part of the e – waste management infrastructure as per the rules in India?
a) Collection centers
b) Dismantling and Recycling units
c) Landfills
d) Authorized Refurbishment centers

**48.** How does e – waste contribute to Air pollution?
a) By emitting Greenhouse gases
b) By releasing toxic fumes when burned
c) By increasing $O_2$ levels in atmosphere
d) By reducing particulate matter

**49.** Which of the following is NOT a Consumer Electronic e – waste item?
a) TVs
b) Washing machine
c) Computers
d) Cameras

**50.** Which of the following is a disadvantage of informal e – waste recycling?
a) It provides job opportunities for informal workers
b) It is usually safer for the Environment
c) It often involves hazardous practices
d) It is more expensive than formal recycling method.

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Question Paper Version : B

# Fourth Semester B.E./B.Tech. Degree Examination, June/July 2026
# Electronic Waste Management - Issues and Challenges

Time: 1 hr. Max. Marks: 50

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5. The informal sector accounts for 5% e – waste recycling , 95% e –waste reaches to an authorized recycler.
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b) Computers, Television , VCRs, Stereos , Copiers and Fax machines are common Electronic products.
c) Both A and B
d) None of these

**32.** What percentage of e – waste is typically recycled globally?
a) 10 %
b) 20 %
c) 40 %
d) 60 %

**33.** Which of the hazardous pollutant occurs in plastic?
a) Lithium
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**34.** Nickel is released from ____
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CBCS SCHEME

**BCV456C**

USN

Question Paper Version : C

## Fourth Semester B.E./B.Tech. Degree Examination, June/July 2026

## Electronic Waste Management - Issues and Challenges

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

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   a) E – waste is a popular , informal name for Electronic products nearing the end of their "Useful life".
   b) Computers, Television , VCRs, Stereos , Copiers and Fax machines are common Electronic products.
   c) Both A and B
   d) None of these

2. What percentage of e – waste is typically recycled globally?
   a) 10 % b) 20 % c) 40 % d) 60 %

3. Which of the hazardous pollutant occurs in plastic?
   a) Lithium b) PCBs c) Lead d) Copper

4. Nickel is released from ____
   a) Display b) Calculator c) Alloy d) Transformers

5. In 2006, the IAER projected that ______ Electronic and Electrical appliances would become e – waste by 2010.
   a) 1 Billion b) 2 Billion c) 3 Billion d) 4 Billion

6. According to the Comptroller and Auditor – General's (CAG) report , what is the amount of e – waste generated annually?
   a) 4 L T b) 5 L T c) 6 L T d) 7 L T

7. Which is the hazardous pollutant released from LED's?
   a) Arsenic b) Barium c) Cobalt d) Cadmium

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**8.** What is the hazardous pollutant released from Electron tubes?
a) Arsenic b) Barium c) Cobalt d) Cadmium

**9.** Which is the hazardous pollutant released from batteries?
a) Arsenic b) Barium c) Cobalt d) Cadmium

**10.** Which is the hazardous pollutant released from calculators?
a) Lithium b) Mercury c) Lead d) Copper

**11.** Which type of e – waste is commonly referred to as "white good"?
a) Large appliances b) Small appliances
c) IT and Telecommunication Equipment d) Consumer Electronics

**12.** What does "Urban Mining" refer in context of the e – waste?
a) Extracting Minerals from Urban landscapes
b) Recovering valuable metals from electronic waste
c) Digging for metals in City parks
d) None of these

**13.** What is the first step in the e – waste recycling process?
a) Shredding b) Sorting c) Melting d) Crushing

**14.** What is the primary purpose of e – waste recycling?
a) To reduce the need for raw materials
b) To generate revenue for recycling companies
c) To increase landfill space
d) To create more Electronic products

**15.** Which method is most Environmentally friendly for e – waste disposal?
a) Land filling b) Incineration
c) Recycling d) Exporting to developing Countries

**16.** What is the deadline for achieving the targets of EPR under the E – Waste (Management) Rules, 2016?
a) 2020 b) 2022 c) 2025 d) 2030

**17.** Which of the following is NOT considered a part of the e – waste management infrastructure as per the rules in India?
a) Collection centers b) Dismantling and Recycling units
c) Landfills d) Authorized Refurbishment centers

**18.** How does e – waste contribute to Air pollution?
a) By emitting Greenhouse gases
b) By releasing toxic fumes when burned
c) By increasing $O_2$ levels in atmosphere
d) By reducing particulate matter

**19.** Which of the following is NOT a Consumer Electronic e – waste item?
a) TVs b) Washing machine
c) Computers d) Cameras

**20.** Which of the following is a disadvantage of informal e – waste recycling?
a) It provides job opportunities for informal workers
b) It is usually safer for the Environment
c) It often involves hazardous practices
d) It is more expensive than formal recycling method.

**21.** Open burning to recover copper wires causes ____
a) Silicosis b) Lung - disease
c) Kidney inflammation d) PAM exposure

**22.** Which organization is responsible of setting standards for e – waste management?
a) EPA (Environmental Protection Agency)
b) FDA (Food and Drug Administration)
c) WHO (World Health Organization)
d) NASA (National Aeronautics and Space Administration)

**23.** Which of the following metal affects mental development in children?
a) Lead b) Barium c) Zinc d) Silver

**24.** Which Authority is responsible for implementing and enforcing e – waste management rules in India?
a) Ministry of Electronic and Information Technology (MEITY)
b) Ministry of Environment , Forest and Climate Change (MOEFCC)
c) Central Pollution Control Board (CPCB)
d) All of these

**25.** The informal sector accounts for 5% e – waste recycling , 95% e –waste reaches to an authorized recycler.
a) True b) False

**26.** Electronic waste varies considerably with its age, origin and manufactures.
a) True b) False

**27.** If the CRT is crushed and burned , it does not emit toxic fumes into the air.
a) True b) False

**28.** E – Waste should be considered as resources and requires to be used in an efficient and sustainable way.
a) True b) False

**29.** Which of the following is an example of large appliances e – waste category?
a) Mobile phones b) Laptops c) Refrigerators d) MP3 players

**30.** Which practice can individuals adopt to contribute to e – waste reduction?
a) Upgrading to new devices frequently
b) Donating or selling old Electronics
c) Throwing Electronics in regular trash bins
d) Ignoring old Electronics

**31.** The Cadmium from one mobile phone battery is enough to pollute how much volume of water approximately.
a) 200 $m^3$ b) 300 $m^3$ c) 600 $m^3$ d) 900 $m^3$

**32.** Which of the following pollutant causes Beryllicosis?
a) Berylium b) Barium
c) Brominated Flame Retardant d) Arsenic

**33.** Which of the following pollutant is / are radioactive?
a) Silver b) Zinc
c) Americium d) Chloro Fluoro carbon

**34.** Which of the following is the lowest per capital e – waste generating state in India?
a) Bihar b) Delhi c) Tamil Nadu d) West Bengal

**35.** Globally only 15 – 20 % of e – waste is recycled while the rest is dumped into developing Countries.
a) True b) False

**36.** What does e – waste stand for?
a) Environment Waste b) Electronic Waste
c) Equipment Waste d) None of these

**37.** What are the health hazards which can be caused by E – Waste?
a) Lung cancer b) DNA damage c) Brain d) All of these

**38.** Which country produces the most e – waste per year?
a) India b) China c) USA d) France

**39.** How much lead is in the cathode ray tube (CRT), commonly called a picture tube?
a) 1.75 pounds b) Between 2 and 3 pounds
c) 19 pounds d) Between 4 and 7 pounds

**40.** The most valuable part of a PC or TV is the
a) Lead in the CRT
b) Circuit boards that contain silver and gold
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d) None of these

**41.** Which of the following e – waste estimation method is more frequently used?
a) Factor models b) Time series analysis
c) Input – output analysis d) Disposal related analysis



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**42.** Proper management of e – waste can provide us
a) Social benefit b) Economic benefit
c) Environmental benefit d) All of these

**43.** Among the e – waste generated due to small house hold appliances the major waste component is of _____
a) Ferrous metal b) Non ferrous metal c) Glass d) Plastics

**44.** Out of the following e – waste estimation methods, which one is the least explored method due to complexity and high uncertainty in long – term pattern?
a) Factor models b) Time series analysis
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**45.** Which of the following State in India is the lowest contributor to E – Waste quantity in the Country?
a) West Bengal b) Madhya Pradesh c) Punjab d) Maharashtra

**46.** Which factors determine the success of e – waste collection program?
a) Cost - effectiveness b) Accessibility
c) Public - Awareness d) All of these

**47.** Which of the following elements / is / are cause of e – waste?
a) Lead b) Cadmium
c) Beryllium or Brominates flame retardants d) All of these

**48.** What does the 'WEEE' directive stand for?
a) Waste Electrical and Electronic Equipment
b) Waste Environmental Electronic Equipment
c) Waste Emissions and Electronic Equipment
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**49.** How are Electronic items dangerous?
a) They degrade over time, releasing concern using chemical into the air
b) Lead and mercury in components can cause metabolic charges in users
c) They leach toxic metals in landfills and into ground water
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**50.** Which toxic compound is not found in e – waste?
a) Mercury b) Cadmium c) Neon d) Lead

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# CBCS SCHEME

**BCV456C**

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**Question Paper Version : D**

## Fourth Semester B.E./B.Tech. Degree Examination, June/July 2026
## Electronic Waste Management - Issues and Challenges

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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1. Which type of e – waste is commonly referred to as "white good"?
   a) Large appliances b) Small appliances
   c) IT and Telecommunication Equipment d) Consumer Electronics

2. What does "Urban Mining" refer in context of the e – waste?
   a) Extracting Minerals from Urban landscapes
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   c) Digging for metals in City parks
   d) None of these

3. What is the first step in the e – waste recycling process?
   a) Shredding b) Sorting c) Melting d) Crushing

4. What is the primary purpose of e – waste recycling?
   a) To reduce the need for raw materials
   b) To generate revenue for recycling companies
   c) To increase landfill space
   d) To create more Electronic products

5. Which method is most Environmentally friendly for e – waste disposal?
   a) Land filling b) Incineration
   c) Recycling d) Exporting to developing Countries

6. What is the deadline for achieving the targets of EPR under the E – Waste (Management) Rules, 2016?
   a) 2020 b) 2022 c) 2025 d) 2030

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7. Which of the following is NOT considered a part of the e – waste management infrastructure as per the rules in India?
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**40.** Which toxic compound is not found in e – waste?
a) Mercury b) Cadmium c) Neon d) Lead

**41.** Which of the following is the correct related to E – waste?
a) E – waste is a popular , informal name for Electronic products nearing the end of their "Useful life".
b) Computers, Television , VCRs, Stereos , Copiers and Fax machines are common Electronic products.
c) Both A and B
d) None of these

**42.** What percentage of e – waste is typically recycled globally?
a) 10 % b) 20 % c) 40 % d) 60 %

**43.** Which of the hazardous pollutant occurs in plastic?
a) Lithium b) PCBs c) Lead d) Copper

**44.** Nickel is released from ____
a) Display b) Calculator c) Alloy d) Transformers

**45.** In 2006, the IAER projected that ______ Electronic and Electrical appliances would become e – waste by 2010.
a) 1 Billion b) 2 Billion c) 3 Billion d) 4 Billion

**46.** According to the Comptroller and Auditor – General's (CAG) report , what is the amount of e – waste generated annually?
a) 4 L T b) 5 L T c) 6 L T d) 7 L T

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a) Arsenic b) Barium c) Cobalt d) Cadmium

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**50.** Which is the hazardous pollutant released from calculators?
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# CBCS SCHEME

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**BEMEM103/203**

## First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

# Elements of Mechanical Engineering

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Enumerate on the role of mechanical engineering in Automotive and Marine sectors covering manufacturing and quality aspects. | **10** | **L2** | **CO1** |
| | **b.** | Briefly explain the following terms with reference to steam formation.<br>(i) Specific heat<br>(ii) Specific volume<br>(iii) Internal energy<br>(iv) Enthalpy<br>(v) Degree of superheat | **10** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Sketch and explain the wind power plant. | **6** | **L2 L3** | **CO1** |
| | **b.** | Mention wind power plant's advantages, disadvantages and its applications. | **4** | **L1** | **CO1** |
| | **c.** | With the help of a neat sketch, explain the basic working principles of Fossil fuelled "THERMAL POWER PLANT". | **10** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain the working principle of "CENTRE LATHE" with neat sketch. | **8** | **L2** | **CO1** |
| | **b.** | Enlist the operations that can be performed on Lathe. | **2** | **L1** | **CO2** |
| | **c.** | With neat sketches, explain the milling operations : (i) Plane milling (ii) End milling. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain the working of a "CNC Machine" with the help of block diagram. | **10** | **L2** | **CO2** |
| | **b.** | What do you understand by "3D printing"? | **4** | **L1** | **CO2** |
| | **c.** | Enumerate the merits and limitations of 3-D printing technology. | **6** | **L3** | **CO2** |



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| **Module – 3** | | | | | |
| **Q.5** | **a.** | With necessary sketches and P-V diagram, briefly explain the working of Four-Stroke-Petrol Engine. | **10** | **L2** | **CO3** |
| | **b.** | Following data are collected from a 4-stroke single cylinder engine at full load :<br>(i) Bore = 200 mm<br>(ii) Stroke = 280 mm<br>(iii) Speed = 300 rpm<br>(iv) Indicated mean effective pressure = 5.6 bars<br>(v) Torque on the brake drum = 250 N-m<br>(vi) Fuel consumed = 4.2 kg/hr<br>(vii) Calorific value = 41000 kJ/kg<br>Determine : (i) Mechanical efficiency<br>(ii) Indicated thermal efficiency<br>(iii) Brake thermal efficiency | **10** | **L3** | **CO4** |
| **OR** | | | | | |
| **Q.6** | **a.** | Enlist and enumerate the desirable properties of a good refrigerant. | **6** | **L2** | **CO3** |
| | **b.** | Describe the following terms with respect to refrigeration :<br>(i) COP (Co-efficient of Performance)<br>(ii) Ton of Refrigeration | **4** | **L2** | **CO3** |
| | **c.** | Explain the principle and operation of Vapour Compression Refrigeration (VCR) system with a suitable diagram. | **10** | **L2** | **CO3** |
| **Module – 4** | | | | | |
| **Q.7** | **a.** | Briefly explain "Flat Belt Drive" and "V-Belt Drive". | **6** | **L2** | **CO3** |
| | **b.** | Discuss the types of Gear Drives and also mention their application. | **6** | **L2** | **CO3** |



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| | **c.** | A pinion with 120 mm pitch circle diameter meshes with a gear of 400 mm pitch circle diameter. The number of teeth on pinion is 18 and it rotates at 1440 rpm.<br>Determine : (i) Gear ratio (ii) Number of teeth on gear<br>(iii) Speed of the gear | **8** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain the principle of Arc welding process with neat sketch and also mention its Industrial applications. | **8** | **L2** | **CO3** |
| | **b.** | Describe the type of flames that can be obtained in Gas Welding process, with an application of each. | **8** | **L2** | **CO3** |
| | **c.** | Differentiate between Brazing and Soldering process. | **4** | **L2** | **CO3** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Discuss on Global trend of the use of "E-vehicles" highlighting their impact on economy. | **10** | **L2** | **CO3** |
| | **b.** | With necessary sketches, explain the different "Robotic" configurations and their Industrial applications. | **10** | **L2** | **CO3** |
| | | **OR** | | | |
| **Q.10** | **a.** | Describe the working of "Hybrid-Vehicles". | **6** | **L2** | **CO3** |
| | **b.** | Discuss the Merits and limitations of Electric-hybrid vehicles. | **4** | **L2** | **CO3** |
| | **c.** | Differentiate between "Open-loop" and "Close-loop" mechatronic systems. Cite the at least two examples for each. | **10** | **L2** | **CO3** |

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BEMEM103/203

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Elements of Mechanical Engineering

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

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| Q.1 | a. | Enumerate on the role of mechanical engineering in Automotive and Marine sectors covering manufacturing and quality aspects. | 10 | L2 | CO1 |
| | b. | Briefly explain the following terms with reference to steam formation.<br>(i) Specific heat<br>(ii) Specific volume<br>(iii) Internal energy<br>(iv) Enthalpy<br>(v) Degree of superheat | 10 | L2 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Sketch and explain the wind power plant. | 6 | L2<br>L3 | CO1 |
| | b. | Mention wind power plant's advantages, disadvantages and its applications. | 4 | L1 | CO1 |
| | c. | With the help of a neat sketch, explain the basic working principles of Fossil fuelled "THERMAL POWER PLANT". | 10 | L2 | CO1 |
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| Q.3 | a. | Explain the working principle of "CENTRE LATHE" with neat sketch. | 8 | L2 | CO1 |
| | b. | Enlist the operations that can be performed on Lathe. | 2 | L1 | CO2 |
| | c. | With neat sketches, explain the milling operations : (i) Plane milling (ii) End milling. | 10 | L2 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Explain the working of a "CNC Machine" with the help of block diagram. | 10 | L2 | CO2 |
| | b. | What do you understand by "3D printing"? | 4 | L1 | CO2 |
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|---|---|---|---|---|---|
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| | **b.** | Following data are collected from a 4-stroke single cylinder engine at full load :<br>(i) Bore = 200 mm<br>(ii) Stroke = 280 mm<br>(iii) Speed = 300 rpm<br>(iv) Indicated mean effective pressure = 5.6 bars<br>(v) Torque on the brake drum = 250 N-m<br>(vi) Fuel consumed = 4.2 kg/hr<br>(vii) Calorific value = 41000 kJ/kg<br>Determine : (i) Mechanical efficiency<br>(ii) Indicated thermal efficiency<br>(iii) Brake thermal efficiency | **10** | **L3** | **CO4** |
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| | **c.** | A pinion with 120 mm pitch circle diameter meshes with a gear of 400 mm pitch circle diameter. The number of teeth on pinion is 18 and it rotates at 1440 rpm.<br>Determine : (i) Gear ratio (ii) Number of teeth on gear<br>(iii) Speed of the gear | **8** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain the principle of Arc welding process with neat sketch and also mention its Industrial applications. | **8** | **L2** | **CO3** |
| | **b.** | Describe the type of flames that can be obtained in Gas Welding process, with an application of each. | **8** | **L2** | **CO3** |
| | **c.** | Differentiate between Brazing and Soldering process. | **4** | **L2** | **CO3** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Discuss on Global trend of the use of "E-vehicles" highlighting their impact on economy. | **10** | **L2** | **CO3** |
| | **b.** | With necessary sketches, explain the different "Robotic" configurations and their Industrial applications. | **10** | **L2** | **CO3** |
| | | **OR** | | | |
| **Q.10** | **a.** | Describe the working of "Hybrid-Vehicles". | **6** | **L2** | **CO3** |
| | **b.** | Discuss the Merits and limitations of Electric-hybrid vehicles. | **4** | **L2** | **CO3** |
| | **c.** | Differentiate between "Open-loop" and "Close-loop" mechatronic systems. Cite the at least two examples for each. | **10** | **L2** | **CO3** |

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**CBCS SCHEME**

**BENGK106/206**

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**Question Paper Version : A**

**First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026**

## Communicative English

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

---

1. Which non verbal cue is often associated with confidence and authority?
   a) Avoiding eye contact b) Slouching posture
   c) Firm handshake d) Fidgeting

2. Which type of communication barrier occurs when there is a misunderstanding due to different interpretations of words?
   a) Physical Barrier b) Semantic Barrier
   c) Cultural Barrier d) Emotional Barrier

3. In the communication process, what is the role of feedback?
   a) To distract from the main message b) To criticize the speaker
   c) To provide a response to the message d) To interrupt the conversation

4. Which communication skill involves the ability to express oneself clearly and effectively?
   a) Listening b) Empathy c) Clarity d) Patience

5. What is the purpose of paraphrasing in communication?
   a) To confuse the speaker
   b) To distort the message
   c) To summarize the speaker's message in your own words
   d) To ignore the speaker's message

6. Which of the following is an example of a physical barrier to communication?
   a) Language difference b) Noise
   c) Cultural differences d) Emotional barriers

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**7.** Which type of barrier occurs when the message is not clearly understood due to unfamiliar words or expressions?
a) Semantic barrier
b) Psychological barrier
c) Cultural barrier
d) Emotional barrier

**8.** Which of the following is a voiced consonant?
a) /p/ b) /t/ c) /k/ d) /b/

**9.** The symbol [θ] represents which English phoneme?
a) /s/ b) /ʃ/ c) /θ/ d) /ð/

**10.** Which of the following is a manner of articulation?
a) Bilabial b) Alveolar c) Voiced d) Nasal

**11.** Which of the following represents the study of how sounds function within a particular language or languages?
a) Phonetics b) Phonology c) Morphology d) Syntax

**12.** The International Phonetic Alphabet (IPA) was developed primarily for :
a) Linguistic research and transcription
b) Standardizing spelling across languages
c) Teaching pronunciation to English learners
d) Simplifying phonetic transcription

**13.** Which of the following represents a vowel sound?
a) /t/ b) /ʃ/ c) /i/ d) /p/

**14.** Which of the following describes a diphthong?
a) A vowel sound made with the tongue near the roof of the mouth
b) A consonant sound produced with complete closure in the vocal tract
c) A vowel sound that glides from one position to another
d) A type of nasal sound produced through the nose

**15.** Which phonetic feature refers to the location in the vocal tract where a consonant sound is produced?
a) Voicing
b) Manner of articulation
c) Place of articulation
d) Fricatives

**16.** Which of the following phonetic symbols represents a commonly mispronounced English consonant sound?
a) / t͡ʃ / b) /ŋ/ c) /ɑ/ d) / ʒ /

**17.** Which of the following is a common mispronunciation of the English vowel sound /i/?
a) “Seat” b) “Ship” c) “Sheep” d) “Bit”

**18.** Which of the following is common error in pronouncing the word “specific”?
a) Pronouncing the “s” as a voiced consonant
b) Omitting the final “c”
c) Stressing the second syllable instead of the first
d) Pronouncing the “i” as a long vowel sound

**19.** Which of the following is a part of speech used to name a person, place , thing of idea?
a) Verb b) Adjective c) Noun d) Adverb



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20. What part of speech modifies a verb, adjective , or another adverb and usually answers the questions : how , when , where , why , or to what extent?
a) Noun b) Pronoun c) Adverb d) Preposition

21. What is the part of speech that connects words or groups of words and usually shows the relationship between a noun (or pronoun) and other words in a sentence?
a) Verb b) Preposition c) Conjunction d) Interjection

22. Which part of speech modifies or describes a noun or pronoun?
a) Adjective b) Adverb c) Preposition d) Conjunction

23. What part of speech is used to represent people, places, things, or ideas?
a) Verb b) Noun c) Adjective d) Adverb

24. Which article is used before a singular countable noun that begins with a consonant sound?
a) A b) An c) The d) No article needed

25. Which article is used before a singular countable noun that begins with a vowel sound?
a) A b) An c) The d) No article needed

26. Which article is used before a plural countable noun?
a) A b) An c) The d) No article needed

27. In the sentence, "She wants to buy ____ car", which article should fill the blank?
a) A b) An c) The d) No article needed

28. In the sentence, "I have ____ apple and _____ orange", which article should fill the blanks?
a) A, an b) The, an c) An, the d) No article needed

29. Which of the following is a preposition of place?
a) On b) After c) During d) Between

30. Which preposition is used to indicate movement from one place to another?
a) Of b) In c) To d) With

31. Which word means "to make less severe or harsh"?
a) Intensify b) Aggravate c) Mitigate d) Exacerbate

32. What is the meaning of the word "ephemeral"?
a) Lasting for a short time b) Lasting for a long time
c) Permanent d) Indestructible

33. Which word is a synonym for "precise"?
a) Vague b) Accurate c) Ambiguous d) Uncertain

34. What is the antonym of "exuberant"?
a) Joyful b) Lively c) Restrained d) Energetic

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**35.** Which word means "to formally reject or disavow a formerly held belief?
a) Embrace b) Abandon c) Repudiate d) Affirm

**36.** What is the synonym of "placid"?
a) Turbulent b) Calm c) Agitated d) Chaotic

**37.** Which word means "to praise highly"?
a) Criticize b) Commend c) Condemn d) Deplore

**38.** What is the antonym of "prosperous"?
a) Wealthy b) Affluent c) Flourishing d) Impoverished

**39.** What is the correct question tag for the statement : "You are coming to the party, ____?"
a) isn't it b) aren't you c) are you d) do you

**40.** What is the appropriate question tag for the sentence : "They haven't arrived yet, ____?"
a) have they b) haven't they c) did they d) didn't they

**41.** What is the term for "a person who is excessively enthusiastic or zealous"?
a) Lethargic b) Apathetic c) Fanatic d) Stoic

**42.** What is the term for "a written declaration that one's testimony given under oath is true"?
a) Affidavit b) Verdict c) Testimony d) Deposition

**43.** What is the term for "a person who pretends to be what he or she is not"?
a) Charlatan b) Imposter c) Liar d) Hypocrite

**44.** Which suffix means "full of" or "characterized by"?
a) -ful b) -less c) -able d) -ous

**45.** What does the suffix "-ist" indicate?
a) One who performs an action
b) One who practices or believes in something
c) Small or little
d) Pertaining to or resembling

**46.** Which suffix from adjectives meaning "having the qualities of" or "pertaining to"?
a) -ic b) -ate c) -ive d) -ve

**47.** What does the prefix "re-" usually indicate?
a) Opposite or against b) Again or back
c) Beyond or across d) Not or lacking

**48.** Which prefix means "under" or beneath"?
a) Sub- b) Trans- c) Peri- d) Hyper-

**49.** What is the word formed by adding the suffix "-ment" to the noun "enjoy"?
a) Enjoyable b) Enjoying c) Enjoyment d) Enjoys

**50.** Which word is formed by adding the prefix "un-" to the word "happy"?
a) Unhappy b) Happening c) Happily d) Unhappily

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**CBCS SCHEME**

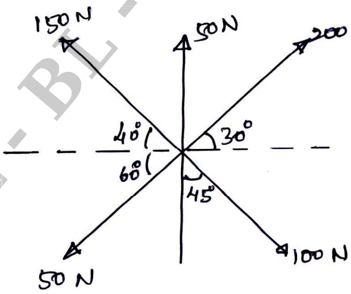
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**BESCK104A**

## First Semester B.E./B.Tech. Degree Examination, June/July 2026
## Introduction to Civil Engineering

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | **Module – 1** | **M** | **L** | **C** |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Explain the scope of following branches in Civil Engineering disciplines:<br>i) Transportation Engineering<br>ii) Environmental Engineering | **10** | **L2** | **CO1** |
| | **b.** | Explain Bricks and their classification. | **10** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Briefly explain the structural elements of building with neat sketch. | **10** | **L2** | **CO1** |
| | **b.** | Explain the following building materials with their applications :<br>i) Construction chemicals<br>ii) Cement and Mortar | **10** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain the role of civil engineers in the infrastructural development of a country. | **10** | **L2** | **CO2** |
| | **b.** | Discuss the importance of sustainable development goals in infrastructure development. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain the features of energy efficient buildings. | **10** | **L2** | **CO2** |
| | **b.** | Explain different methods to manage solid waste in urban areas. | **10** | **L2** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | State and prove parallelogram laws of forces. | **8** | **L2** | **CO3** |
| | **b.** | A system of forces are acting on a body is shown in Fig.Q.5(b). Determine the magnitude and direction of resultant.<br>  <br>Fig.Q.5(b) | **12** | **L3** | **CO3** |





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<table>
<tr><td colspan="6" align="center">OR</td></tr>
<tr><td>Q.6</td><td>a.</td><td>State and prove Varignons theorem of moments.</td><td>8</td><td>L2</td><td>CO3</td></tr>
<tr><td></td><td>b.</td><td>Determine the magnitude and direction of force P, which keeps the concurrent system of Fig.Q.6(b) in equilibrium.

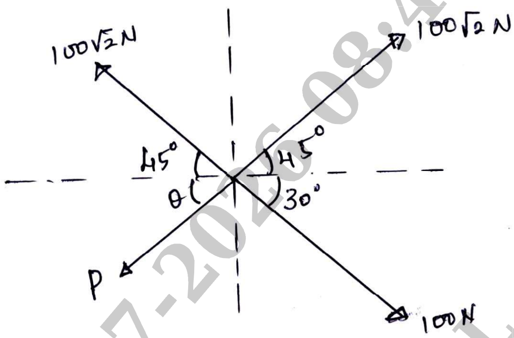



Fig.Q.6(b)</td><td>12</td><td>L3</td><td>CO3</td></tr>
<tr><td colspan="6" align="center">Module – 4</td></tr>
<tr><td>Q.7</td><td>a.</td><td>Derive an expression to locate centroid of rectangle.</td><td>8</td><td>L2</td><td>CO4</td></tr>
<tr><td></td><td>b.</td><td>Determine the centroid of Fig.Q.7(b), shaded region about x and y axis

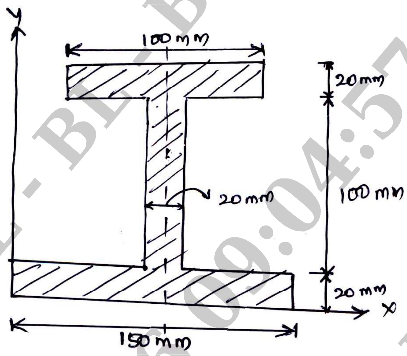



Fig.Q.7(b)</td><td>12</td><td>L3</td><td>CO4</td></tr>
<tr><td colspan="6" align="center">OR</td></tr>
<tr><td>Q.8</td><td>a.</td><td>Derive an expression to locate centroid of semi circle.</td><td>8</td><td>L2</td><td>CO4</td></tr>
<tr><td></td><td>b.</td><td>Determine the centroid of the shaded region shown in Fig.Q.8(b) about x and y axis.

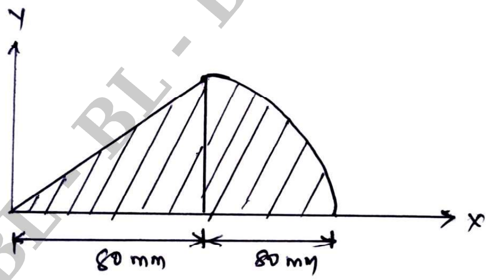
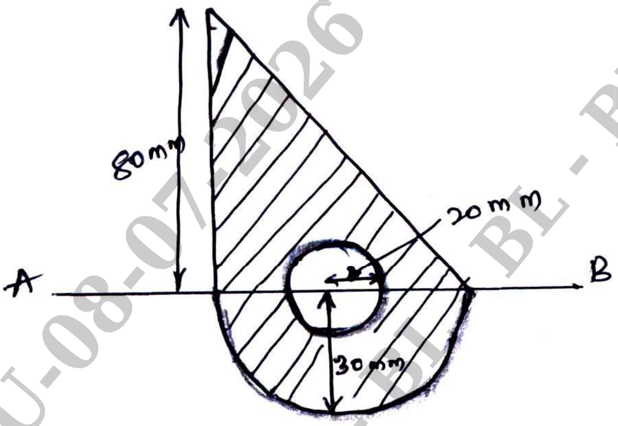
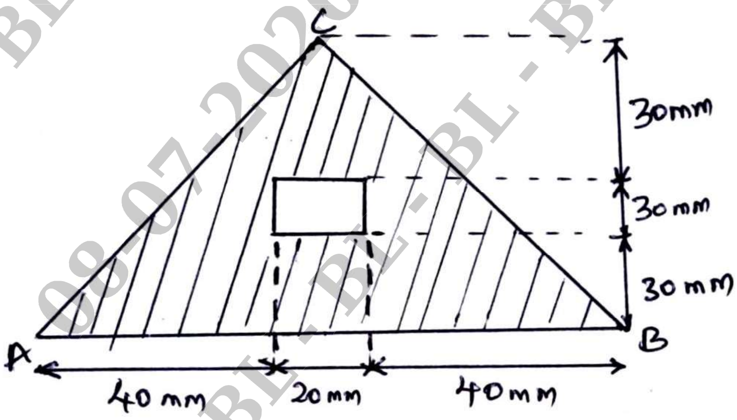



Fig.Q.8(b)</td><td>12</td><td>L3</td><td>CO4</td></tr>
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<table>
<tr><th colspan="6">Module – 5</th></tr>
<tr><td>Q.9</td><td>a.</td><td>Derive an expression to locate moment of inertia of a rectangle.</td><td>8</td><td>L2</td><td>CO5</td></tr>
<tr><td></td><td>b.</td><td>Compute the moment of inertia of the shaded region shown in Fig.Q.9(b) about the axis AB.<br>  <br><br>Fig.Q.9(b)</td><td>12</td><td>L3</td><td>CO5</td></tr>
<tr><th colspan="6">OR</th></tr>
<tr><td>Q.10</td><td>a.</td><td>Explain the following:<br>i) Parallel Axis Theorem<br>ii) Perpendicular Axis Theorem.</td><td>8</td><td>L2</td><td>CO5</td></tr>
<tr><td></td><td>b.</td><td>Determine the moment of inertia and radius of gyration of the shaded area shown in Fig.Q.10(b) about the base AB and centroidal axis parallel to AB.<br>  <br><br>Fig.Q.10(b)</td><td>12</td><td>L3</td><td>CO5</td></tr>
</table>

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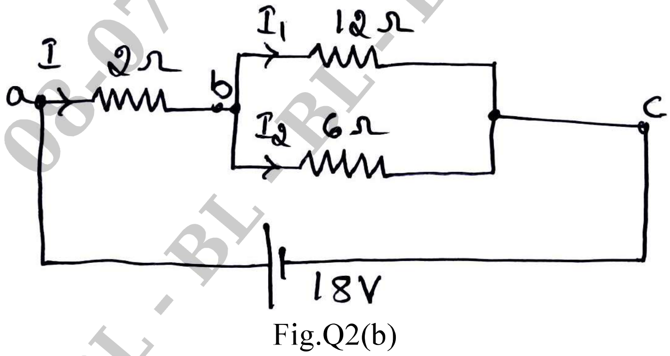
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**BESCK104B**

## First Semester B.E/B.Tech. Degree Examination, June/July 2026
# Introduction to Electrical Engineering

Time: 3 hrs. Max. Marks:100

**Note:** *1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. VTU Formula Hand Book is permitted.*
*3. M : Marks , L: Bloom's level , C: Course outcomes.*

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| 1 | a. | Explain the general structure of electrical power system using single line diagram. | 8 | L2 | CO1 |
| | b. | Differentiate between Conventional and Non-conventional energy sources. | 4 | L1 | CO1 |
| | c. | A resistance of 8 ohm is connected in series with a parallel combination of 12 Ω and 24 Ω. The whole circuit is connected across a 100V supply. Find :<br>i) The current drawn from the supply<br>ii) The voltage across 8Ω resistance<br>iii) The currents flowing in 12Ω and 24Ω resistances. | 8 | L3 | CO1 |
| | | **OR** | | | |
| 2 | a. | With a neat diagram, explain nuclear power generation. | 7 | L2 | CO1 |
| | b. | Describe I, $I_1$, $I_2$, $V_{ab}$ and $V_{bc}$ in the network of Fig.Q2(b).<br>  <br><br>Fig.Q2(b) | 8 | L3 | CO1 |
| | c. | State Ohm's law. Mention its limitations. | 5 | L1 | CO1 |



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| | | **Module – 2** | | | |
| **3** | a. | Deduce the relationship between instantaneous voltage and current of a series R–L circuit with a neat diagram. Also, derive the expression for instantaneous power. Draw relevant vector diagram and waveform. | **8** | **L3** | **CO2** |
| | b. | A circuit is composed of a resistance of 8 Ω and a capacitive reactance of 6 Ω in series. A voltage v = 141.4 sin(314t) is applied to the circuit.<br>i) Find the impedance<br>ii) rms value of current<br>iii) Power delivered<br>iv) Voltage across the capacitor<br>v) Value of capacitance. | **8** | **L3** | **CO2** |
| | c. | Define the following :<br>i) Amplitude<br>ii) Time period<br>iii) Instantaneous value<br>iv) Peak factor. | **4** | **L1** | **CO2** |
| | | **OR** | | | |
| **4** | a. | Explain the generation of three – phase voltages with a neat waveform. | **7** | **L2** | **CO2** |
| | b. | A balanced star – connected load of (8 + j6)Ω per phase is connected across a three – phase, 230 V supply. Find the line current, power factor, active power, reactive power and total volt ampere. | **8** | **L2** | **CO2** |
| | c. | List out the advantages of three – phase system over single-phase. | **5** | **L1** | **CO2** |
| | | **Module – 3** | | | |
| **5** | a. | Explain the characteristics of DC series motor. | **7** | **L2** | **CO3** |
| | b. | With a neat sketch explain the working principle of DC motor. | **8** | **L2** | **CO3** |
| | c. | An 8-pole, DC generator running at 1200 rpm, and with a flux of 25 mwb per pole generates 440V. Calculate the number of conductors, if the armature is<br>i) Lap wound<br>ii) Wave wound. | **5** | **L3** | **CO3** |

| | | | | | |
|---|---|---|---|---|---|
| | | **OR** | | | |
| **6** | a. | With a neat diagram, explain the construction of a DC generator. | **8** | **L1** | **CO3** |
| | b. | A 4-pole, 500V, DC shunt motor has 720 wave connected conductors on its armature. The full load armature current is 60A and flux per pole is 0.03 wb. The armature resistance is 0.2Ω and the contact drop per brush is 1V. Calculate full load speed of the motor. | **6** | **L2** | **CO3** |
| | c. | Derive an expression for induced emf of a DC generator. | **6** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **7** | a. | Explain the operation of a single – phase transformer. Also derive the expression for induced emf. | **8** | **L1** | **CO4** |
| | b. | A three – phase, 440V, 50 Hz, 4-pole induction motor is running at 1440 rpm. Calculate : i) slip ii) the frequency of the rotor induced emf. | **6** | **L2** | **CO4** |
| | c. | Explain the construction of squirrel cage and wound rotor. | **6** | **L1** | **CO4** |
| | | **OR** | | | |
| **8** | a. | Explain the different types of losses that occur in a transformer. Mention their equation and the ways to reduce the losses. | **8** | **L2** | **CO4** |
| | b. | A 40 KVA, single –phase transformer has core loss of 450 W and full load copper loss of 850 W. If the power factor of the load is 0.8, Calculate :<br>i) Full-load efficiency<br>ii) Maximum efficiency at upf. | **6** | **L3** | **CO4** |
| | c. | A 6-pole induction motor is fed from 50 Hz supply. If the frequency of rotor emf at full-load is 2 Hz. Find full-load slip and speed. | **6** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **9** | a. | With a switching table and neat circuit, explain 3-way control of lamp. | **8** | **L2** | **CO5** |
| | b. | What s Electric shock? What are the factors affecting the severity of shock? | **6** | **L1** | **CO5** |
| | c. | Explain the working principle of miniature circuit breaker. | **6** | **L1** | **CO5** |
| | | **OR** | | | |
| **10** | a. | What is Earthing? With a neat diagram, explain plate earthing. | **6** | **L2** | **CO5** |
| | b. | Explain the working of Fuse. Mention its advantages and disadvantages. | **8** | **L1** | **CO5** |
| | c. | List out the safety precautions that must be taken while working with electrical installations to avoid electronic shock. | **6** | **L1** | **CO5** |

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**BESCK104C**

## First Semester B.E./B.Tech. Degree Examination, June/July 2026
## Introduction to Electronics and Communication

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***3. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Draw the block diagram of DC power supply and explain the individual blocks. | 8 | L2 | CO1 |
| | b. | With a neat block diagram, derive the expression for overall gain of a negative feedback amplifier. | 7 | L3 | CO1 |
| | c. | A main transformer having a turns ratio of 44:1 is connected to a 220 V r.m.s main supply. If the secondary output is applied to a halfwave rectifier, determine the peak voltage that will appear across a load. Assume diode drop voltage = 0.6 V. | 5 | L3 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | With a neat circuit diagram and waveform, explain the working of bridge rectifier. | 8 | L2 | CO1 |
| | b. | What is voltage regulator? With neat circuit diagram, explain the operation of a voltage regulator using zener diode. | 7 | L2 | CO1 |
| | c. | With a neat block diagram, explain multi-stage amplifiers. | 5 | L2 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | With circuit diagram, explain the operation of an Wienbridge oscillator. | 8 | L2 | CO2 |
| | b. | Define the following operational amplifier parameters value:<br>i) Closed loop voltage gain<br>ii) Input Resistance<br>iii) Open loop voltage gain<br>iv) Input offset voltage | 8 | L2 | CO2 |
| | c. | Determine the frequency of oscillation of a ladder network oscillator when C = 10 nF and R = 10 KΩ. | 4 | L2 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Explain the single-stage astable oscillator with circuit diagram. | 8 | L2 | CO2 |
| | b. | What is Oscillator? And mention condition for oscillations. | 6 | L2 | CO2 |
| | c. | Draw the circuit diagram and input and output waveform of the following operational amplifier circuits:<br>i) Differentiators ii) Summing Amplifier | 6 | L2 | CO2 |



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| | | **Module – 3** | | | |
| **Q.5** | **a.** | Implement full adder using two half adders and one OR gate, write the equations for sum and $c_{out}$ . | **8** | **L3** | **CO3** |
| | **b.** | Convert the following numbers to its equivalent numbers and show the steps:<br>i) $3A6.C58D_{(16)} = ?_{(8)}$ ii) $0.6875_{(10)} = ?_{(2)}$ | **6** | **L2** | **CO3** |
| | **c.** | Subtract using (r – 1)′s complement method<br>i) $4456_{(10)} - 34234_{(10)}$ | **6** | **L2** | **CO3** |
| | | **OR** | | | |
| **Q.6** | **a.** | Implement half adder circuit using basic gates, write the equations for sum and carry. | **8** | **L2** | **CO3** |
| | **b.** | State and prove De-Morgan's theorem with its truth table. | **6** | **L2** | **CO3** |
| | **c.** | Subtract using r′s complement method<br>i) $(1010100)_2 - (1000100)_2$ | **6** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | What is an embedded system? Compare embedded systems with general computer system. | **8** | **L2** | **CO4** |
| | **b.** | What is the difference between RISC and CISC processors? | **6** | **L2** | **CO4** |
| | **c.** | Write a short note on i) Transducers ii) Sensors | **6** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain the classification of embedded system based on generation, complexity and performance. | **10** | **L2** | **CO4** |
| | **b.** | Explain the working of 7-segment LED used to display the data. | **10** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Draw the block diagram of basic communication system and briefly explain the individual blocks. | **10** | **L2** | **CO5** |
| | **b.** | Explain Multiple Access Techniques in communication system. | **10** | **L2** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Define Amplitude and frequency modulation, sketch AM and FM waveform. | **10** | **L2** | **CO5** |
| | **b.** | With a neat diagram, explain ASK (Amplitude Shift Keying), FSK (Frequency Shift Keying) and PSK (Phase Shift Keying) modulation schemes. | **10** | **L2** | **CO5** |

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BESCK104D

# First Semester B.E./B.Tech. Degree Examination, June/July 2026
## Introduction to Mechanical Engineering

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Briefly explain role of Mechanical Engineering in Industry and Society. | 10 | L2 | CO1 |
| | b. | Explain Emerging Trends and Technologies in Energy and Manufacturing sectors. | 10 | L2 | CO1 |
| | | OR | | | |
| Q.2 | a. | Explain the different types of fossil fuels and biofuels with applications. | 10 | L2 | CO1 |
| | b. | Write a short note on :<br>i) Global warming<br>ii) Ozone layer depletion | 10 | L2 | CO1 |
| | | Module – 2 | | | |
| Q.3 | a. | Briefly explain the specifications of Lathe and Drilling machine. | 08 | L2 | CO2 |
| | b. | Explain the following operations with neat sketches.<br>i) Knurling ii) Boring iii) Slot milling | 12 | L2 | CO2 |
| | | OR | | | |
| Q.4 | a. | Explain the components of CNC with block diagram. | 10 | L2 | CO2 |
| | b. | What are advantages and disadvantages of CNC? | 06 | L1 | CO2 |
| | c. | Write a short note on 3D printing. | 04 | L2 | CO2 |
| | | Module – 3 | | | |
| Q.5 | a. | With a neat sketch explain the components of IC Engine. | 10 | L2 | CO3 |
| | b. | Explain the working of 4 – stroke petrol engine with P – V diagram. | 10 | L2 | CO3 |
| | | OR | | | |
| Q.6 | a. | Explain the components of Electric and Hybrid vehicle with neat sketch. | 10 | L2 | CO3 |
| | b. | List advantages, disadvantages and applications of Electric and Hybrid vehicles. | 10 | L2 | CO3 |
| | | Module – 4 | | | |
| Q.7 | a. | Recite the classification of engineering materials. | 10 | L2 | CO4 |
| | b. | List and explain the mechanical properties and applications of Ferrous materials. | 10 | L2 | CO4 |
| | | OR | | | |
| Q.8 | a. | Define welding? Explain the construction and working of Arc welding with neat sketch. | 10 | L2 | CO4 |
| | b. | With a neat sketch explain 3 types of flames used in Gas welding. | 10 | L2 | CO4 |
| | | Module – 5 | | | |
| Q.9 | a. | Explain with the block diagram the open and closed loop control systems. | 10 | L2 | CO5 |
| | b. | Define Automation and explain three types of Automations. | 10 | L2 | CO5 |
| | | OR | | | |
| Q.10 | a. | Explain Physical design and Logical design of IoT. | 10 | L2 | CO5 |
| | b. | Explain functional blocks and communication models used in IoT. | 10 | L2 | CO5 |

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BESCK104E

# First Semester B.E./B.Tech. Degree Examination, June/July 2026

## Introduction to C Programming

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M: Marks, L: Bloom's level, C: Course outcomes.***

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Write basic structure of 'C' program and explain its different sections. | **08** | **L1** | **CO1** |
| | **b.** | Define a variable. Explain the rules for constructing variables in 'C' language with examples. | **06** | **L1** | **CO1** |
| | **c.** | Define a token. Explain the different tokens available in 'C' language. | **06** | **L1** | **CO2** |
| | | **OR** | | | |
| **Q.2** | **a.** | What is an Operator? List and explain any 4 types of operators. | **08** | **L1** | **CO1** |
| | **b.** | List the input devices of computer and explain any two input devices. | **06** | **L1** | **CO1** |
| | **c.** | What is a Data Type? Explain all the basic data types in 'C' language with examples. | **06** | **L1** | **CO2** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | What is Looping? Differentiate between while and do-while loop with syntax. | **08** | **L2** | **CO1** |
| | **b.** | Write a program to check whether a given integer is palindrome or not. | **08** | **L3** | **CO1** |
| | **c.** | Explain break and continue statement in 'C' language with example. | **04** | **L1** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Write a C program to find factorial of a number n. | **06** | **L3** | **CO2** |
| | **b.** | How would you explain switch statement with an example? | **08** | **L2** | **CO1** |
| | **c.** | Explain formatted input output functions in C with examples. | **06** | **L1** | **CO2** |

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|---|---|---|---|---|---|
| | | **Module – 3** | | | |
| **Q.5** | **a.** | What is function? Explain different types of functions with suitable examples. | **08** | **L2** | **CO1** |
| | **b.** | Write a program to sort a given array of integers in ascending order using Bubble sort technique. | **08** | **L3** | **CO2** |
| | **c.** | Explain scope of a variable with example. | **04** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.6** | **a.** | What is an array? Explain how 1D and 2D arrays are declared and initialized. | **08** | **L1** | **CO2** |
| | **b.** | Define Recursion. Write a C program to find factorial of number using recursion. | **06** | **L3** | **CO2** |
| | **c.** | Explain call by value and call by reference with example. | **06** | **L3** | **CO1** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | How would you explain string manipulation functions with examples? | **08** | **L3** | **CO2** |
| | **b.** | Implement a matrix multiplication with validation of matrix multiplication. | **12** | **L3** | **CO2** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain the declaration and initialization of string variables. | **04** | **L1** | **CO1** |
| | **b.** | Write a C program to find the transpose of a given matrix. | **10** | **L3** | **CO2** |
| | **c.** | Write a C program to check a given string is palindrome or not. | **06** | **L3** | **CO1** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | What is Pointer? Explain with suitable example pointer declaration and initialization. | **06** | **L2** | **CO2** |
| | **b.** | Write a C program to swap contents of two values using pointer. | **06** | **L3** | **CO2** |
| | **c.** | Define a Structure. Explain the syntax of structure declaration in C with example. | **08** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.10** | **a.** | Explain the following with an example with respect to structures.<br>i) Structure name<br>ii) Members of structures<br>iii) Accessing a structure | **10** | **L2** | **CO2** |
| | **b.** | Develop a program to compute the mean, variance and standard deviations of ‘n’ numbers using pointer. | **10** | **L2** | **CO2** |

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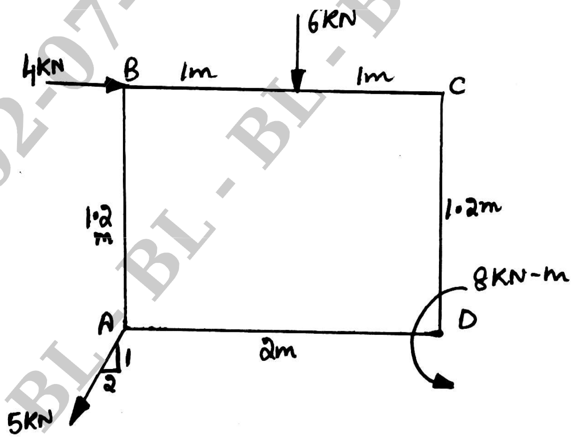
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**BESCK204A**

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026
# Introduction to Civil Engineering

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Explain i) Structural Engineering ii) Environmental engineering | 10 | L2 | CO1 |
| | b. | List the qualities of Good Building stone. | 10 | L1 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Explain : i) Transportation Engineering ii) Geotechnical Engineering | 10 | L2 | CO1 |
| | b. | What is RCC? List the advantages and uses of RCC. | 10 | L1 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | List the sustainable development goals. Explain briefly any two them. | 10 | L1 | CO2 |
| | b. | Write a short note on :<br>i) Urban Air Pollution Management ii) Clean City Concept. | 10 | L1 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Explain with few examples the smart city concept. | 10 | L2 | CO2 |
| | b. | Write a short note on : i) Smart Buildings ii) Solid Waste Management. | 10 | L1 | CO2 |
| | | **Module – 3** | | | |
| Q.5 | a. | State and derive the parallelogram law of forces. | 10 | L2 | CO3 |
| | b. | Determine the magnitude, direction of resultant force for the system shown. Locate the resultant force with respect to point D for Fig Q5(b)  Fig Q5(b) | 10 | L3 | CO3 |





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<table>
<tr><td colspan="6">OR</td></tr>
<tr><td>Q.6</td><td>a.</td><td>Explain the basic concept of idealization.</td><td>5</td><td>L1</td><td>CO3</td></tr>
<tr><td></td><td>b.</td><td>State and prove Lami's Theorem.</td><td>5</td><td>L2</td><td>CO3</td></tr>
<tr><td></td><td>c.</td><td>A light string ABCDE is fixed to weight $w_1$ and $w_2$ at B and C and a weight 100N at free end E. Find the tensions in the string $w_1$ and $w_2$. [Fig Q6(c)].

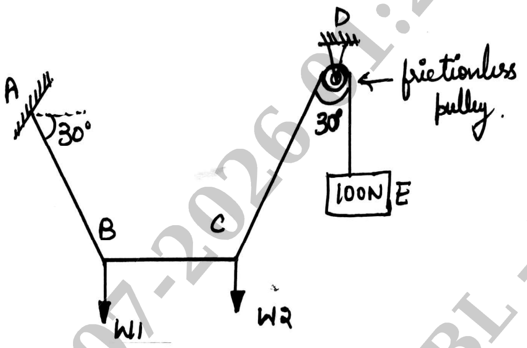


Fig Q6(c)</td><td>10</td><td>L3</td><td>CO3</td></tr>
<tr><td colspan="6">Module – 4</td></tr>
<tr><td>Q.7</td><td>a.</td><td>Find the centriod of a triangle using first principle.</td><td>10</td><td>L3</td><td>CO4</td></tr>
<tr><td></td><td>b.</td><td>Find the centriod for the given shaded area. Refer Fig Q7(b).

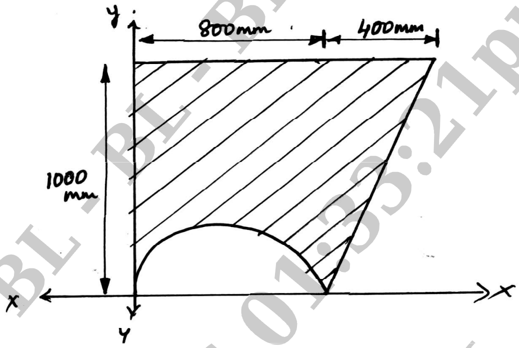


Fig Q7(b)</td><td>10</td><td>L3</td><td>CO4</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td>Q.8</td><td>a.</td><td>Find centroid of semicircle using first principle.</td><td>10</td><td>L3</td><td>CO4</td></tr>
<tr><td></td><td>b.</td><td>Determine the centroid of the shaded area shown in Fig Q8(b).

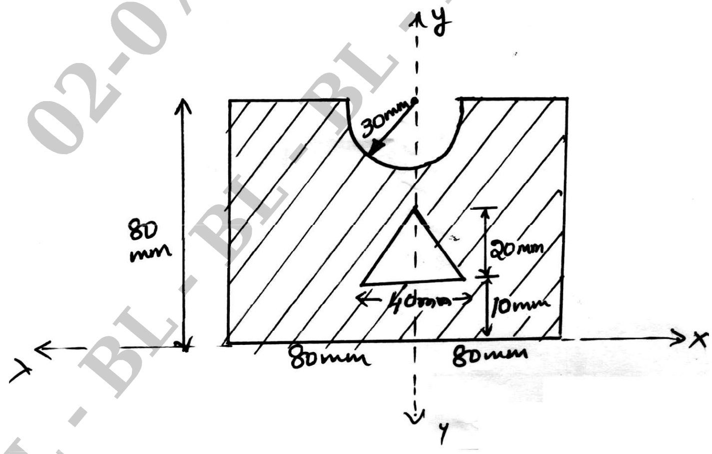
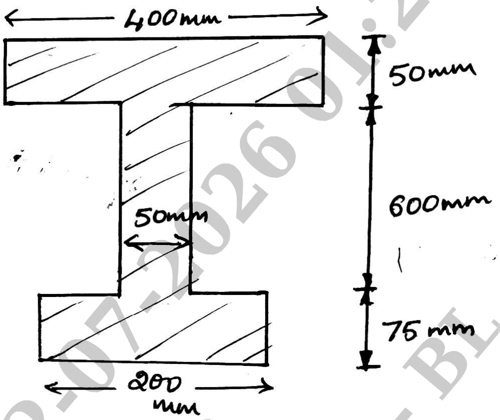
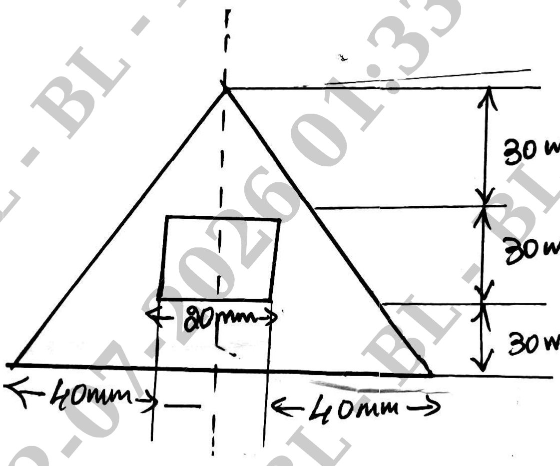


Fig Q8(b)</td><td>10</td><td>L3</td><td>CO4</td></tr>
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| | | **Module – 5** | | | |
| **Q.9** | **a.** | Derive the moment of inertia of a quarter circle using first principle. | **10** | **L3** | **CO5** |
| | **b.** | Find the moment of inertia along horizontal and vertical axis passing through the centroid of a section shown in Fig Q9(b).<br>  <br><br>Fig Q9(b) | **10** | **L3** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Derive an expression for moment of Inertia of a triangle using first principle. | **10** | **L2** | **CO5** |
| | **b.** | Find moment of inertia for the area shown in Fig Q10(b) about base AB and centroidal axis parallel to AB.<br>  <br><br>Fig Q10(b) | **10** | **L3** | **CO5** |

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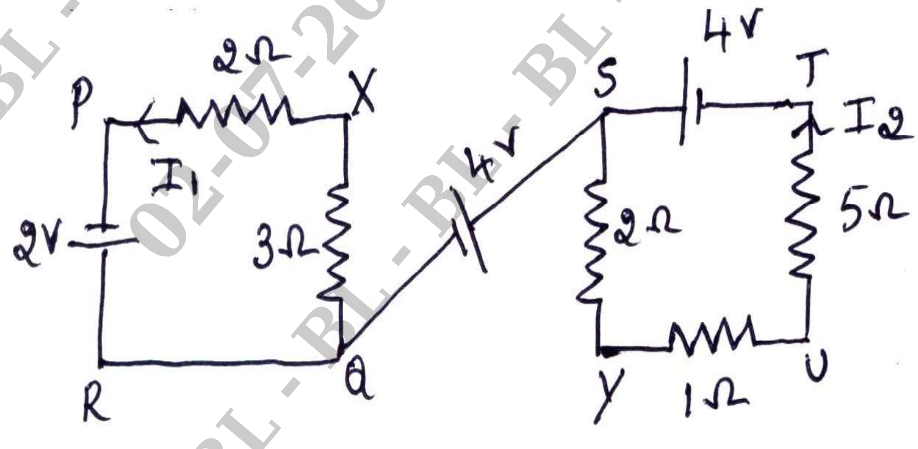
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**BESCK204B**

## Second Semester B.E./B.Tech. Degree Examination, June / July 2026
## Introduction to Electrical Engineering

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. VTU Formula Hand Book is permitted.***
***3. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| **Q.1** | **a.** | State the Ohm's law and mention its limitations? | **06** | **L2** | **CO2** |
| | **b.** | Write the general structure of Electrical Power System using single line diagram approach and explain briefly. | **08** | **L2** | **CO1** |
| | **c.** | Two resistances 20Ω and 40Ω are connected in parallel. A resistance of 10Ω is connected in series with the combination. A voltage of 200 V is applied across the circuit. Find the current in each resistance and the voltage across 10Ω. Find also the power consumed in all the resistances. | **06** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Explain the working of Hydro power generation using relevant block diagram. | **08** | **L2** | **CO1** |
| | **b.** | State and explain Kirchhoff's Laws. | **06** | **L2** | **CO2** |
| | **c.** | Find the Potential difference between the points X & Y in the network shown in fig. Q.2(c).  Fig. Q2(c) | **06** | **L3** | **CO2** |





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**Module – 2**

| | | | | | |
|---|---|---|---|---|---|
| **Q.3** | **a.** | Define :<br>i) Real power<br>ii) Reactive power<br>iii) Apparent power | **06** | **L1** | **CO1** |
| | **b.** | Develop an equation for the power consumed by a R – C series circuit. Draw the waveform of voltage, current and power. | **08** | **L2** | **CO2** |
| | **c.** | An AC circuit consists of a pure resistance of 10 Ω and is connected across a supply of 230 V, 50 Hz.<br>Calculate :<br>i) Current<br>ii) Power consumed<br>iii) Instantaneous Equation of voltage and current | **06** | **L3** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | A pure inductor excited by sinusoidal varying AC voltage, show that the average power consumed by inductor is zero. | **08** | **L2** | **CO2** |
| | **b.** | With relevant diagram, explain the concept of line values of voltage and current and phase values of voltage and currents in 3ϕ star and delta connected. | **06** | **L2** | **CO1** |
| | **c.** | A 318 μF capacitor is connected across a 230V, 50Hz supply.<br>Determine :<br>i) Capacitive reactance<br>ii) Current<br>iii) Instantaneous equation for voltage and current. | **06** | **L3** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | With a neat sketch, explain the construction of the various parts of a DC Machine. | **08** | **L2** | **CO3** |
| | **b.** | Derive the torque equation of DC Motor. | **06** | **L2** | **CO3** |
| | **c.** | A 4 pole, 220V, lap connected D.C shunt motor has 36 slots, each slot containing 16 conductors. It draws a current of 40 A from the supply. The field resistance and armature resistances are 110 Ω and 0.1 Ω respectively. The motor develops an output power of 6 KW. The flux per pole is 40 mwb. Calculate : i) the speed ii) the torque developed by the armature. | **06** | **L3** | **CO3** |

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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.6** | **a.** | Explain the $N/I_a$, $T/I_a$ characteristics of DC shunt Motor. | **08** | **L2** | **CO3** |
| | **b.** | Derive an EMF equation of DC Generator with usual notations. | **06** | **L2** | **CO3** |
| | **c.** | A 8 pole wave wound DC shunt generator has 36 slots, 10 conductors in each slot. The flux per pole is 0.01 wb. It runs at 1200 rpm. The armature and Field resistances are 0.1 Ω and 100 Ω respectively. Calculate the terminal voltage when the load current is 120 A. | **06** | **L3** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Define Slip of an Induction motor. Derive an expression for effect of slip on the rotor frequency. | **06** | **L2** | **CO4** |
| | **b.** | Derive the Emf equation of a transformer and hence obtain the voltage and current transformation ratios. | **08** | **L2** | **CO4** |
| | **c.** | A 3 phase, 4 pole, 400 V, 50 Hz Induction motor runs with a slip of 4%. Find the rotor speed and frequency. | **06** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain the Losses occur in a single phase transformer. | **08** | **L2** | **CO4** |
| | **b.** | Explain the types of rotor in a three phase Induction motor. | **06** | **L2** | **CO4** |
| | **c.** | A 600 KVA transformer has an efficiency of 92% at full load, unity p. f and half full load, 0.9 p.f. Determine its efficiency at 75% of full load and 0.9 p.f. | **06** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | With a wiring diagram and Truth Table explain two way and three way control of lamp. | **06** | **L2** | **CO5** |
| | **b.** | What is fuse? With a neat diagram, explain the working principle of fuse. | **06** | **L2** | **CO5** |
| | **c.** | Mention the power rating of following electrical appliances:<br>i) LED lights ii) Laptops iii) TV iv) Refrigerator | **08** | **L3** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | What is Earthing? With a neat diagram explain plate earthing. | **08** | **L2** | **CO5** |
| | **b.** | Define Electric Shock. What are the safety precaution to be taken against to avoid Electric Shock? | **06** | **L2** | **CO5** |
| | **c.** | Define Unit and Tariff. Explain the two part Tariff with its merits and demerits. | **06** | **L2** | **CO5** |



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BESCK204C

# Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Introduction to Electronics and Communication

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M: Marks, L: Bloom's level, C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Define Rectifier. Explain half wave rectifier with capacitor filter with a neat circuit diagram and relevant waveforms. | **10** | **L1** | **CO1** |
| | **b.** | Define the following parameters:<br>i) Gain ii) Input resistance iii) Output resistance<br>iv) Frequency Response v) Bandwidth | **05** | **L1** | **CO1** |
| | **c.** | What is Voltage Multiplier? Write circuit diagram and explain the operation of Voltage Tripler. | **05** | **L1** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | With a neat block diagram, explain the working of DC Power Supply. | **10** | **L1** | **CO1** |
| | **b.** | What is Feedback System? With a neat diagram explain negative feedback amplifier and also derive the expression for overall gain. | **10** | **L1** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | List the ideal characteristics of OpAmp. With a neat circuit diagram and waveforms explain the operation of non-inverting amplifier. | **10** | **L2** | **CO2** |
| | **b.** | With necessary diagram and equation explain the operation of single stage Astable multivibrator using Op-amp. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | State Barkhausen's criteria for sustained oscillations. Explain the operation of Wein Bridge Oscillator with a neat diagram. | **08** | **L2** | **CO2** |
| | **b.** | Define slew rate of an Opamp. An OpAmp has an input resistance of 2 MΩ. Solve for the input current when the input voltage of 5 mV is present. | **04** | **L2** | **CO2** |
| | **c.** | Explain the operation of a three-stage ladder RC network oscillator. | **08** | **L2** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Solve the following :<br>i) $(12A.54)_{16} = (?)_8$<br>ii) $(43.375)_{10} = (?)_2$<br>iii) $(72532–3250)_{10}$ Using 10's complement<br>iv) $(101011–110111)_2$ Using 1's complement | **10** | **L3** | **CO3** |

| | | | | | |
|---|---|---|---|---|---|
| | **b.** | List different Huntington Postulates and prove the distributive law for two valued Boolean algebra. | **10** | **L3** | **CO3** |
| | | **OR** | | | |
| **Q.6** | **a.** | Explain Half adder using truth table and implement the circuit using logic gates. | **10** | **L3** | **CO3** |
| | **b.** | Solve the Boolean function $xy + x^{1}z + yz$ to a minimum number of literals. | **05** | **L3** | **CO3** |
| | **c.** | Implement $f = x^{1}\, y^{1}z + x^{1}\, yz + xy^{1}$ using logic gates. | **05** | **L3** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | What are the elements of the Embedded system? Mention the types of embedded system based on central core with example. | **10** | **L2** | **CO2** |
| | **b.** | With suitable block diagram explain control system. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain the different configurations of 7- segment LED display with 8051 microcontroller interface. | **10** | **L2** | **CO2** |
| | **b.** | Compare Embedded Systems and general computing systems. List major applications areas of Embedded Systems. | **10** | **L2** | **CO2** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | With a neat block diagram explain the modern communication system. | **10** | **L2** | **CO2** |
| | **b.** | Briefly describe the concept of radio wave propagation methods. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.10** | **a.** | What is Modulation? Explain the Amplitude and Frequency modulation with waveforms. | **10** | **L2** | **CO2** |
| | **b.** | With suitable waveforms explain digital modulation schemes. | **10** | **L2** | **CO2** |

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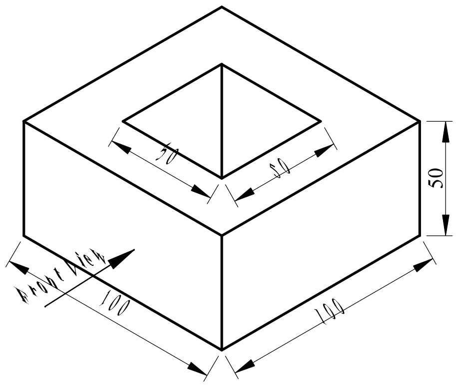
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**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| **1(a)** | A point A is 20 mm above HP and 25 mm in front of VP. Another point B is 25 mm behind VP and 40 mm below HP. Draw their projections when the distances between their projectors parallel to XY line is zero mm. Add the right side view only to point B. | **8** |
| **1 (b)** | A line AB 60 mm long has one of its extremities 20 mm in front of VP and 15 mm above HP. The line is inclined at 25°to HP and 40° to VP. Draw its top view and front views. | **12** |
| | **OR** | |
| **2** | A 30°-60° setsquare of 60 mm longest side, is so kept such that the longest side is in HP, making an angle of 30° with VP. The set square itself is inclined at 45° to HP. Draw the projections of the setsquare. | **20** |
| | **Module – II** | |
| **3** | A pentagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its slant edges. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45°. | **30** |
| | **OR** | |
| **4** | A hexagonal prism 25 mm sides of base and 50 mm axis length rests on HP on one of its edges. Draw the projections of the prism when the axis is inclined to HP at 45° to VP at 30°. | **30** |
| | **Module – III** | |
| **5** | A square prism of base side 30mm and axis length 60mm is resting on HP on its base with all the vertical faces being equally inclined to VP. It is cut by an inclined plane $60^0$ to HP and perpendicular to VP and is passing through a point on the axis at a distance 15mm form its top face. Draw the development of the lower portion of the prism | **25** |
| | **OR** | |
| **6** | Draw the development of the lateral surface of a truncated vertical cylinder, 40mm diameter of base and height 50 mm, the truncated flat surface of the cylinder bisects the axis at 60° to it. | **25** |
| | **Module – IV** | |
| **7** | A cone of base diameter 50 mm and height 40 mm is placed centrally on the top face of a square slab side of 80 mm and height 20 mm. Draw the isometric view of the combination. | **25** |
| | **OR** | |
| **8** | Draw the top view, front view and side view of the following figure   | **25** |

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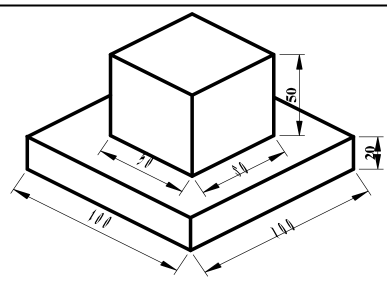
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**First / Second Semester B.E Degree Examination, June/July 2026**

# COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | A point G is 25 mm below HP and situated in the third quadrant. Its shortest distance from the intersection of XY and X1Y1 is 45 mm. Draw its projections and its distance from VP. | 8 |
| 1 (b) | The top view pq of a straight line is 70 mm and makes an angle of 60° with XY line. The end Q is 10 mm in front of VP and 30 mm above HP. The difference between the distances of P and Q above HP is 45 mm. Draw the projections. Determine its true length and true inclinations with HP and VP. | 12 |
| | **OR** | |
| 2 | A regular hexagonal lamina of sides 25 mm is lying in such a way that one of its sides on HP while the side opposite to the side on which it rests is on VP. If the lamina makes 60° to HP. Draw the projections of the lamina. | 20 |
| | **Module – II** | |
| 3 | A hexagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40°and appears to be inclined to VP at 45°. | 30 |
| | **OR** | |
| 4 | A cone of 50 mm base diameter and 60 mm axis length rests on HP on one of its generators. Draw its projections when the axis is inclined to VP at 30°. | 30 |
| | **Module – III** | |
| 5 | A square pyramid of 25mm base edge and 50mm height rests with its base on HP with its entire base edges equally inclined to VP. It is cut by a plane perpendicular to VP and inclined to HP at 60°, passing through the extreme right corner of base. Draw the development of lateral surface of pyramid | 25 |
| | **OR** | |
| 6 | A pentagonal prism of base sides 30mm and axis length 60mm rests with its base on HP and an edge of the base inclined at 45° to VP. It is cut by plane perpendicular to VP, inclined at 40° to HP and passing through a point on axis, at distance of 30mm from the base. Develop the remaining surfaces of the truncated prism | 25 |
| | **Module – IV** | |
| 7 | A frustum of cone of base side diameter 50 mm, top diameter 25 mm and height 50 mm is placed centrally on a square slab of side 80 mm and thickness 30 mm. Draw the isometric view of the combination. | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure  | 25 |



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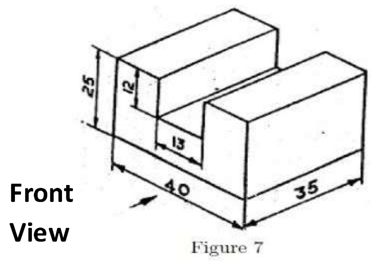
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**First / Second Semester B.E Degree Examination, June/July 2026**

# COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| **1(a)** | A point 'A' is 30 mm in front of VP and 40 mm above HP. Another point B is 20 mm behind VP and 35 mm below HP. The horizontal distance between the points measured parallel to XY line is 60 mm. Draw the projections of the points. | **8** |
| **1 (b)** | A line AB has its end A 20 mm above the HP and 30 mm in front of VP. The other end B is 60 mm above HP and 45 mm in front of VP. The distance between end projectors is 70 mm. draw its true length and apparent inclinations. | **12** |
| | **OR** | |
| **2** | A square lamia ABCD of 40 mm side rests on corner such that the diagonal AC appears to be at 45° to VP. The two sides BC and CD containing the corner A make equal inclinations with HP. The surface of the lamina makes 30° with HP. Draw its top and front views. | **20** |
| | **Module – II** | |
| **3** | A pentagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40°and appears to be inclined to VP at 45°. | **30** |
| | **OR** | |
| **4** | A square pyramid 35mm sides of base and 60 mm axis length rests on HP on one of its slant edges. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45°. | **30** |
| | **Module – III** | |
| **5** | A vertical cylinder of base diameter 50 mm and height 60 mm rests on HP such that it is cut by a cutting plane inclined at $45^0$ to the axis and bisecting it. Draw the development of the lateral surfaces of the cylinder. | **25** |
| | **OR** | |
| **6** | A square pyramid of side of base 45mm, altitude 70mm is resting with its base on HP with two sides of the base parallel to VP. The pyramid is cut by a section plane which is perpendicular to VP and inclined at 40° to HP. The cutting plane bisects the axis of the pyramid. Obtain the development of the lateral surfaces of the truncated pyramid. | **25** |
| | **Module – IV** | |
| **7** | A hemisphere of diameter 50 mm is resting on its curved surface centrally on the top face of frustum of a rectangular pyramid base 80 mm x 60 mm and top face 60 mm x 40 mm, height 55 mm. Draw the isometric view of the combination | **25** |
| | **OR** | |
| **8** | Draw the top view, front view and side view of the following figure   Figure 7 | **25** |

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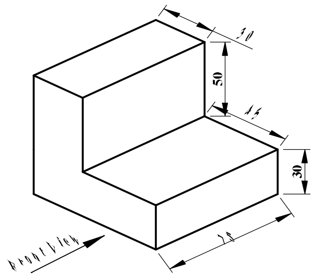
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**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| **1(a)** | A point P is on HP and 30 mm in front of VP. Another point Q is on VP and 40 mm above HP. The distance between their projectors parallel to XY line is 50 mm. Find the distance between their front and top views of the points P and Q. | **8** |
| **1 (b)** | The top view of a line 75 mm long measures 50 mm. The end P is 30 mm in front of VP and 15 mm above HP. The end Q is 15 mm in front of VP and above HP. Draw the projections of the line and finds its true inclinations with HP and VP. | **12** |
| | **OR** | |
| **2** | A circular lamina of 50 mm diameter is standing with one of its points on the rim on HP and the lamina inclined at 45° to HP. The diameter at right angles to the diameter, which is passing through the point on which the lamina rests, is parallel to VP. Draw its projections | **20** |
| | **Module – II** | |
| **3** | A hexagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and to VP at 30°. | **30** |
| | **OR** | |
| **4** | A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the pyramid when the axis is inclined to HP at $40^0$ | **30** |
| | **Module – III** | |
| **5** | A rectangular prism of base size 25mm × 40mm and axis length 65mm is resting on HP on its base with the longer side of the base inclined at 30° to VP. It is cut by a plane inclined at 40° to HP and perpendicular to VP and passes through extreme left corner of base. Draw the development of the lateral surface of the remaining portion of the prism. | **25** |
| | **OR** | |
| **6** | Draw the development of the lateral surface of a truncated vertical cylinder, 40mm diameter of base and height 50 mm, the truncated flat surface of the cylinder bisects the axis at 60° to it. | **25** |
| | **Module – IV** | |
| **7** | A rectangular pyramid of base 40 mm x 25 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric view of the combination. | **25** |
| | **OR** | |
| **8** | Draw the top view, front view and side view of the following figure   | **25** |

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## CBCS 2025- SCHEME

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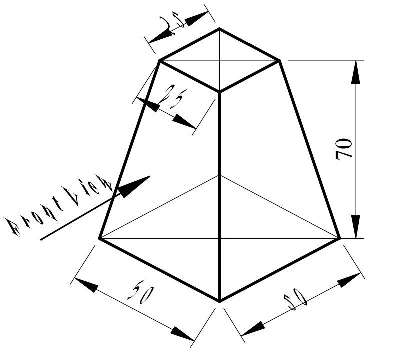
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**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | Two points R and S are on HP. The point R is 35 mm in front of VP, while S is 50 mm behind VP. The line joining their top views makes an angle of 40° with XY. Find the horizontal distance between the two projectors. | 8 |
| 1 (b) | A line AB has its end A 20 mm above the HP and 15 mm in front of VP. The other end B is 60 mm above the HP and 45 mm in front of VP. The distance between end projectors is 70 mm. draw its projections. Determine the apparent lengths and true inclinations. | 12 |
| | OR | |
| 2 | An equilateral triangular lamia of 25 mm side lies on one of its sides on HP. The lamina makes 45° with HP and one of its medians is inclined at 40° to VP. Draw its projections | 20 |
| | Module – II | |
| 3 | A pentagonal prism 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30°. Draw the projections of the prism when the axis is inclined to HP at 40°. | 30 |
| | OR | |
| 4 | A cone of base diameter 40 mm and axis length 50 mm is resting on a point on the circumference of its base such that its apex is 40 mm above HP and its top view of the axis is inclined at 60° to VP. Draw the top and front views of the solid. | 30 |
| | Module – III | |
| 5 | Draw the development of the truncated portion of lateral faces of a pentagonal prism of 25 mm sides of base and 50mm height standing vertically with one of its rectangular faces parallel to VP and nearer to it. The inclined face of truncated prism is 30° to its axis and passes through the right extreme corner of the top face of the prism | 25 |
| | OR | |
| 6 | A square pyramid base 40mm side and axis 65mm long has its base on HP and all the edges of the base are equally inclined to VP. It is cut by an inclined section plane at 45°to its axis, bisecting it. Draw the development of the truncated pyramid. | 25 |
| | Module – IV | |
| 7 | A frustum of cone of base side diameter 50 mm, top diameter 25 mm and height 50 mm is placed centrally on the top face of a cylinder diameter 60 mm and height 60 mm. Draw the isometric view of the combination. | 25 |
| | OR | |
| 8 | Draw the top view, front view and side view of the following figure ( frustum of Square Pyramid)   | 25 |

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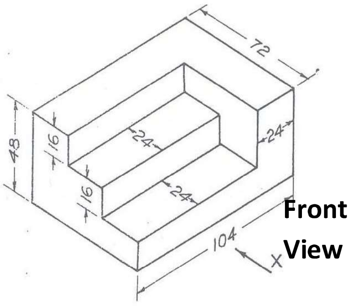
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**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max.Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | Draw the projections of the following points on the same XY line. Name the Quadrants in which they lie.i)A – 30 mm above HP and 35 mm in front of VP, iii) D – 35 below HP and 30 mm in front of VP. | 8 |
| 1 (b) | A line AB 80 mm long is inclined to HP at 30° and inclined to VP at 45°. Draw front and top views of line and determine their lengths. Also, measure the perpendicular distance of end B from both HP & VP. | 12 |
| | **OR** | |
| 2 | A pentagonal lamina of sides 25 mm is having a side both on HP and VP. The corner opposite to the side on which it rests is 15 mm above HP. Draw the top and front views of the lamina. | 20 |
| | **Module – II** | |
| 3 | A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30°. Draw the projections of the pyramid when the axis is inclined to HP at 40°. | 30 |
| | **OR** | |
| 4 | A hexagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its edges of the base. Draw the projections of the pyramid when the axis is inclined to HP at 45° and to VP at 30°. | 30 |
| | **Module – III** | |
| 5 | A square prism of base side 30mm and axis length 60mm is resting on HP on its base with all the vertical faces being equally inclined to VP. It is cut by an inclined plane 60° to HP and perpendicular to VP and is passing through a point on the axis at a distance 15mm form its top face. Draw the development of the lower portion of the prism. | 25 |
| | **OR** | |
| 6 | A vertical cylinder of base diameter 50mm and axis length 60mm is cut by two planes which are perpendicular to VP and inclined at 45° to HP and passing through either side from the center point of the top face. Draw the development of the lateral surface of the cylinder. | 25 |
| | **Module – IV** | |
| 7 | A square prism of base side 30 mm and length 70 mm is resting on its rectangular face on top of a square slab side 70 mm and 25 mm thick. Draw the isometric view of the combination. | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure   | 25 |

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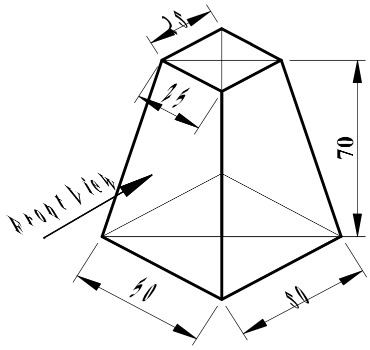
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**First / Second Semester B.E Degree Examination, June/July 2026**

# COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | A point G is 25 mm below HP and situated in the third quadrant. Its shortest distance from the intersection of XY and X1Y1 is 45 mm. Draw its projections and its distance from VP. | 8 |
| 1 (b) | A line AB 60 mm long has one of its extremities 20 mm in front of VP and 15 mm above HP. The line is inclined at 25° to HP and 40° to VP. Draw its top view and front views. | 12 |
| | **OR** | |
| 2 | An equilateral triangular lamia of 25 mm side lies on one of its sides on HP. The lamina makes 45° with HP and one of its medians is inclined at 40° to VP. Draw its projections. | 20 |
| | **Module – II** | |
| 3 | A square prism 35mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the prism when the axis is inclined to HP at $45^0$ | 30 |
| | **OR** | |
| 4 | A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the pyramid when the axis is inclined to HP at $40^0$ | 30 |
| | **Module – III** | |
| 5 | A hexagonal pyramid of sides 35mm and altitude 65mm is resting on HP on its base with two of the base sides perpendicular to VP. The pyramid is cut by a plane inclined at 30° to HP and perpendicular to VP and is intersecting the axis at 30mm above the base. Draw the development of the remaining portion of the pyramid | 25 |
| | **OR** | |
| 6 | Draw the development of the lateral surface of a truncated vertical cylinder, 40mm diameter of base and height 50 mm, the truncated flat surface of the cylinder bisects the axis at 60° to it. | 25 |
| | **Module – IV** | |
| 7 | A rectangular pyramid of base 40 mm x 25 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric view of the combination | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure  | 25 |

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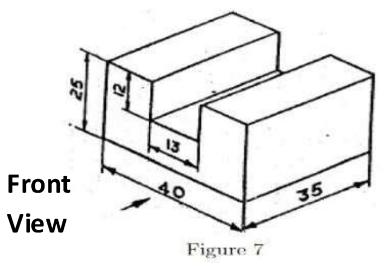
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**First / Second Semester B.E Degree Examination, June/July 2026**

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**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | Draw the projections of the following points on the same XY line. Name the Quadrants in which they lie: i)A – 30 mm above HP and 35 mm in front of VP, ii) B – 35 mm below HP and on VP and iii) C – 40 mm above HP and on VP | 8 |
| 1 (b) | A line AB has its end A 20 mm above the HP and 30 mm in front of VP. The other end B is 60 mm above HP and 45 mm in front of VP. The distance between end projectors is 70 mm. draw its true length and apparent inclinations. | 12 |
| | OR | |
| 2 | A circular lamina of 50 mm diameter is standing with one of its points on the rim on HP and the lamina inclined at 45° to HP. The diameter at right angles to the diameter, which is passing through the point on which the lamina rests, is parallel to VP. Draw its projections. | 20 |
| | **Module – II** | |
| 3 | A square prism 35mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the prism when the axis is inclined to HP at $45^0$ | 30 |
| | OR | |
| 4 | A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the pyramid when the axis is inclined to HP at $40^0$ | 30 |
| | **Module – III** | |
| 5 | A right cone of 60mm diameter of base and 75mm height stands on its base on HP. It is cut to the shape of a truncated cone with its truncated surface inclined at 45° to the axis lying at a distance of 40 mm from the apex of the cone. Obtain the development of the lateral surface of the truncated cone. | 25 |
| | OR | |
| 6 | A hexagonal pyramid of sides 35mm and altitude 65mm is resting on HP on its base with two of the base sides perpendicular to VP. The pyramid is cut by a plane inclined at 30° to HP and perpendicular to VP and is intersecting the axis at 30mm above the base. Draw the development of the remaining portion of the pyramid. | 25 |
| | **Module – IV** | |
| 7 | A rectangular pyramid of base 40 mm x 25 mm and height 50 mm is placed centrally on a rectangular slab of sides 100 mm x 60 mm and thickness 20 mm. Draw the isometric projection of the combination. | 25 |
| | OR | |
| 8 | Draw the top view, front view and side view of the following figure   Figure 7 | 25 |

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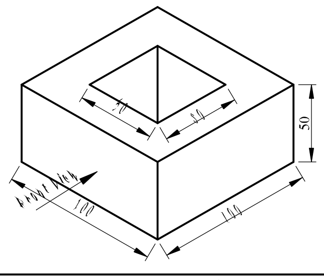
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### First / Second Semester B.E Degree Examination, June/July 2026

# COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | A point 'M' is 30 mm in front of VP and 20 mm above HP. Another point N is 15 mm behind VP and 25 mm below HP. The horizontal distance between the points parallel to XY line is 50 mm. Draw the projections of the points M and N. | 8 |
| 1 (b) | Draw the projections of a straight line AB, 100 mm long, inclined at 45° to HP and 30° to VP. The end A is in HP and the end B is in VP. Find the shortest distance between the straight line AB and the line of intersection of planes of projection | 12 |
| | OR | |
| 2 | A pentagonal lamina of sides 25 mm is having side both on HP and VP. The surface of the lamina is inclined at an angle of 60° with HP. Draw the top and front views of the lamina. | 20 |
| | Module – II | |
| 3 | A pentagonal prism 25mm sides of base and 60 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and appears to be inclined to VP at 45°. | 30 |
| | OR | |
| 4 | A square prism 35mm sides of base and 60 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and to VP at 30°. | 30 |
| | Module – III | |
| 5 | A square prism of base side 30mm and axis length 60mm is resting on HP on its base with all the vertical faces being equally inclined to VP. It is cut by an inclined plane $60^0$ to HP and perpendicular to VP and is passing through a point on the axis at a distance 50 mm form base. Draw the development of the lower portion of the prism | 25 |
| | OR | |
| 6 | A frustum of a square pyramid has its base 40mm sides, top 16mm sides and height 60mm, its axis is vertical and a side of its base is parallel to VP. Draw the projections of the frustum and show the development of lateral surfaces of it. | 25 |
| | Module – IV | |
| 7 | Draw isometric view of a hexagonal prism of side of base 40 mm and height 60 mm with a right circular cone of base 40 mm as diameter and altitude 50 mm, resting on its top such that the axis of both the solids are collinear. | 25 |
| | OR | |
| 8 | Draw the top view, front view and side view of the following figure   | 25 |

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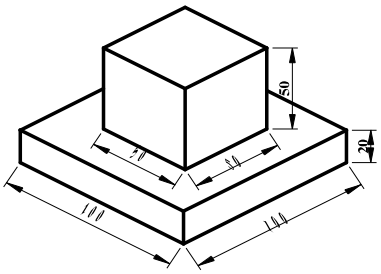
**1BCEDC/M/EC/E/S103/203**

**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | A point G is 25 mm below HP and situated in the third quadrant. Its shortest distance from the intersection of XY and X1Y1 is 45 mm. Draw its projections and its distance from VP. | 8 |
| 1 (b) | The top view pq of a straight line is 70 mm and makes an angle of 60° with XY line. The end Q is 10 mm in front of VP and 30 mm above HP. The difference between the distances of P and Q above HP is 45 mm. Draw the projections. Determine its true length and true inclinations with HP and VP. | 12 |
| | **OR** | |
| 2 | A regular hexagonal lamina of sides 25 mm is lying in such a way that one of its sides on HP while the side opposite to the side on which it rests is on VP. If the lamina makes 60° to HP. Draw the projections of the lamina. | 20 |
| | **Module – II** | |
| 3 | A hexagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40°and appears to be inclined to VP at 45°. | 30 |
| | **OR** | |
| 4 | A cone of 50 mm base diameter and 60 mm axis length rests on HP on one of its generators. Draw its projections when the axis is inclined to VP at 30°. | 30 |
| | **Module – III** | |
| 5 | A square pyramid of 25mm base edge and 50mm height rests with its base on HP with its entire base edges equally inclined to VP. It is cut by a plane perpendicular to VP and inclined to HP at 60°, passing through the extreme right corner of base. Draw the development of lateral surface of pyramid | 25 |
| | **OR** | |
| 6 | A pentagonal prism of base sides 30mm and axis length 60mm rests with its base on HP and an edge of the base inclined at 45° to VP. It is cut by plane perpendicular to VP, inclined at 40° to HP and passing through a point on axis, at distance of 30mm from the base. Develop the remaining surfaces of the truncated prism | 25 |
| | **Module – IV** | |
| 7 | A frustum of cone of base side diameter 50 mm, top diameter 25 mm and height 50 mm is placed centrally on a square slab of side 80 mm and thickness 30 mm. Draw the isometric view of the combination. | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure   | 25 |

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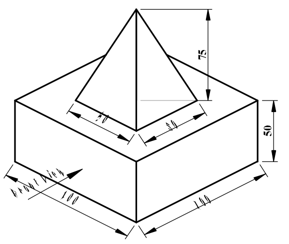
**1BCEDC/M/EC/E/S103/203**

**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | Draw the projections of the following points on the same XY line, keeping convenient distance between each other projectors. Name the Quadrants in which they lie.i) P – 20 mm above HP and 35 mm in front of VP. ii) R – 40 mm above HP and on VP and iii) S – 35 mm below HP and 30 mm behind VP. | 8 |
| 1 (b) | A line AB measuring 70 mm has its end A 15 mm in front of VP and 20 mm above HP and the other end B is 60 mm in front of VP and 50 mm above HP. Draw the projections of the line and find the inclinations of the line with both the reference planes of projections. | 12 |
| | **OR** | |
| 2 | A regular hexagonal lamina of sides 25 mm is lying in such a way that one of its sides on HP while the side opposite to the side on which it rests is on VP. If the lamina makes 60° to HP. Draw the projections of the lamina. | 20 |
| | **Module – II** | |
| 3 | A hexagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and appears to be inclined to VP at 45° | 30 |
| | **OR** | |
| 4 | A hexagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its slant triangular faces. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45° | 30 |
| | **Module – III** | |
| 5 | A rectangular prism of base 40mm x 25mm and height 65mm rests on HP on its base with the longer base side inclined at 30° to VP. It is cut by a plane inclined at 40° to HP; perpendicular to VP cuts the axis at its mid height. Draw the development of the remaining portion of the prism. | 25 |
| | **OR** | |
| 6 | A right regular cylinder of diameter 50 mm and height 65 mmcut by section plane inclined at 30° to its axis and passes through the midpoint of the axis. Draw the development of the bottom portion of the cylinder | 25 |
| | **Module – IV** | |
| 7 | A hemisphere of diameter 50 mm is centrally resting on top of a square prism of base side 60 mm and height 30 mm such that the curved surface of hemisphere is touching the top face of the prism. Draw its isometric view. | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure  | 25 |

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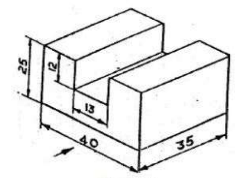
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**First / Second Semester B.E Degree Examination, June/July 2026**

# COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| **1(a)** | A point ‘M’ is 30 mm in front of VP and 20 mm above HP. Another point N is 15 mm behind VP and 25 mm below HP. The horizontal distance between the points parallel to XY line is 50 mm. Draw the projections of the points M and N and join their front and top views. Draw the right side view for the point N only. | **8** |
| **1 (b)** | The top view of a line 75 mm long measures 50 mm. The end P is 30 mm in front of VP and 15 mm above HP. The end Q is 15 mm in front of VP and above HP. Draw the projections of the line and finds its true inclinations with HP and VP. | **12** |
| | **OR** | |
| **2** | A pentagonal lamina having edges 25 mm is placed on one of its corners on HP such that the perpendicular bisector of the edge passing through the corner on which the lamina rests is inclined at 30° to HP and 45° VP. Draw the top and front views of the lamina. | **20** |
| | **Module – II** | |
| **3** | A hexagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its slant edge. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45° | **30** |
| | **OR** | |
| **4** | A hexagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40°and to VP at 30°. | **30** |
| | **Module – III** | |
| **5** | A vertical cylinder of base diameter 50mm and axis length 60mm is cut by two planes which are perpendicular to VP and inclined at 45° to HP and passing through either side from the center point of the top face. Draw the development of the lateral surface of the cylinder. | **25** |
| | **OR** | |
| **6** | A pentagonal prism of 30mm side of base and height 50mm lies with its base on HP such that one of the rectangular faces is inclined at 40° to VP. It is cut by a cutting inclined at 30° to the axis passing through a point on it 30mm above the base. Develop the bottom portion of the prism. | **25** |
| | **Module – IV** | |
| **7** | The frustum of a square pyramid of base side 40 mm, top 20mm and height 60 mm rests on the center of the top of a square block of side 60 mm and height 20 mm. The base edges of the pyramid are parallel to the top edges of the square block. Draw the isometric view of the combination of solids | **25** |
| | **OR** | |
| **8** | Draw the top view, front view and side view of the following figure **Front View**   Figure 7 | **25** |

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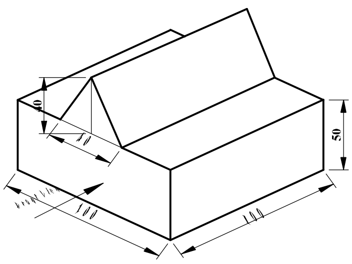
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**First / Second Semester B.E Degree Examination, June/July 2026**

# COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | Draw the projections of the following points on the same XY line, keeping convenient distance between each projector. Also, state the Quadrant in which they lie. i)A – 30 mm below HP and 25 mm behind VP, ii)C – On HP and 30 mm in front of VP and iii)D – On HP and 35 mm behind VP. | 8 |
| 1 (b) | Draw the projections of a straight line AB, 100 mm long, inclined at 45° to HP and 30° to VP. The end A is in HP and the end B is in VP. | 12 |
| | **OR** | |
| 2 | A hexagonal lamina of sides 25 mm rests on one of its corners on HP. The lamina makes 45° to HP and the diagonal passing through the corner on which it rests appears to be inclined at 30° to VP. Draw its projections | 20 |
| | **Module – II** | |
| 3 | Pentagonal prism 25mm sides of base and 60 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and appears to be inclined to VP at 45°. | 30 |
| | **OR** | |
| 4 | A square pyramid 35mm sides of base and 60 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and to VP at 30°. | 30 |
| | **Module – III** | |
| 5 | A pentagonal prism of 30mm side of base and height 50mm lies with its base on HP such that one of the rectangular faces is inclined at 40° to VP. It is cut to the shape of a truncated pyramid with the truncated surface inclined at 30° to the axis so as to pass through a point on it 30mm above the base. Develop the truncated portion of the prism so as to produce a one piece development. | 25 |
| | **OR** | |
| 6 | A square pyramid base 40mm side and axis 65mm has its base on HP and all the edges of the base are equally inclined to VP. It is cut by an inclined section plane at $45^0$to HP and perpendicular to VP and bisects the axis. Draw the development of the truncated pyramid | 25 |
| | **Module – IV** | |
| 7 | A cone of base diameter 30 mm and height 40 mm rests centrally over a cube of side 50 mm. Draw the isometric view of the combination of solids | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure   | 25 |

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## CBCS 2025- SCHEME

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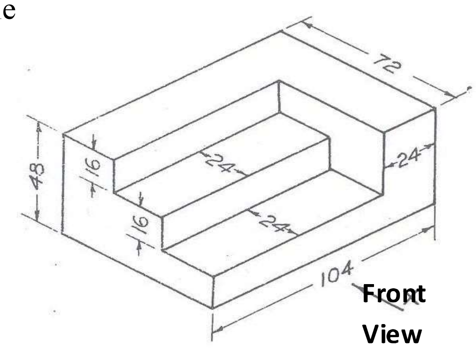
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**First / Second Semester B.E Degree Examination, June/July 2026**

# COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| **1(a)** | Two points R and S are on HP. The point R is 35 mm in front of VP, while S is 50 mm behind VP. The line joining their top views makes an angle of 40° with XY. Find the horizontal distance between the two projectors. | **8** |
| **1 (b)** | The distance between the end projectors through the end points of a line AB is 60 mm. the end A is 10 mm above HP and 15 mm in front of VP. The end B is 35 mm in front of VP. The line AB appears 70 mm long in the front view. Complete the projections. Find the true length of the line and its inclinations with HP and VP. | **12** |
| | **OR** | |
| **2** | A square lamina of 40 mm side rests on one of its sides on HP, The lamina makes 30° to HP and the sides on which it rests makes 45° to VP. Draw the projections. | **20** |
| | **Module – II** | |
| **3** | A square pyramid 35mm sides of base and 60 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and to VP at 30°. | **30** |
| | **OR** | |
| **4** | A cone of 50 mm base diameter and 60 mm axis length rests on HP on one of its generators. Draw its projections when the axis is inclined to VP at 30°. | **30** |
| | **Module – III** | |
| **5** | A pentagonal prism of base sides 30mm and axis length 60mm rests with its base on HP and an edge of the base inclined at 45° to VP. It is cut by plane perpendicular to VP, inclined at 40° to HP and passing through a point on axis, at distance of 30mm from the base. Develop the remaining surfaces of the truncated prism. | **25** |
| | **OR** | |
| **6** | A frustum of a square pyramid has its base 40mm sides, top 16mm sides and height 60mm, its axis is vertical and a side of its base is parallel to VP. Draw the projections of the frustum and show the development of lateral surfaces of it | **25** |
| | **Module – IV** | |
| **7** | A sphere of diameter 45 mm rests centrally over a frustum of cone of base diameter 60 mm, top diameter 40 mm and height 60 mm. Draw its isometric projections. | **25** |
| | **OR** | |
| **8** | Draw the top view, front view and side view of the following figure   | **25** |

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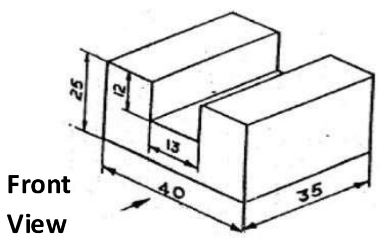
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**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| **1(a)** | Draw the projections of the following points on the same XY line. Name the Quadrants in which they lie: i)A – 30 mm above HP and 35 mm in front of VP, ii) B – 35 mm below HP and on VP and iii) C – 40 mm above HP and on VP | **8** |
| **1 (b)** | A line AB has its end A 20 mm above the HP and 30 mm in front of VP. The other end B is 60 mm above HP and 45 mm in front of VP. The distance between end projectors is 70 mm. draw its true length and apparent inclinations. | **12** |
| | **OR** | |
| **2** | A circular lamina of 50 mm diameter is standing with one of its points on the rim on HP and the lamina inclined at 45° to HP. The diameter at right angles to the diameter, which is passing through the point on which the lamina rests, is parallel to VP. Draw its projections. | **20** |
| | **Module – II** | |
| **3** | A square prism 35mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the prism when the axis is inclined to HP at $45^0$ | **30** |
| | **OR** | |
| **4** | A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the pyramid when the axis is inclined to HP at $40^0$ | **30** |
| | **Module – III** | |
| **5** | A right cone of 60mm diameter of base and 75mm height stands on its base on HP. It is cut to the shape of a truncated cone with its truncated surface inclined at 45° to the axis lying at a distance of 40 mm from the apex of the cone. Obtain the development of the lateral surface of the truncated cone. | **25** |
| | **OR** | |
| **6** | A hexagonal pyramid of sides 35mm and altitude 65mm is resting on HP on its base with two of the base sides perpendicular to VP. The pyramid is cut by a plane inclined at 30° to HP and perpendicular to VP and is intersecting the axis at 30mm above the base. Draw the development of the remaining portion of the pyramid. | **25** |
| | **Module – IV** | |
| **7** | A rectangular pyramid of base 40 mm x 25 mm and height 50 mm is placed centrally on a rectangular slab of sides 100 mm x 60 mm and thickness 20 mm. Draw the isometric projection of the combination. | **25** |
| | **OR** | |
| **8** | Draw the top view, front view and side view of the following figure   Figure 7 | **25** |

Name & Signature of Examiner 1 Name & Signature of Examiner 2

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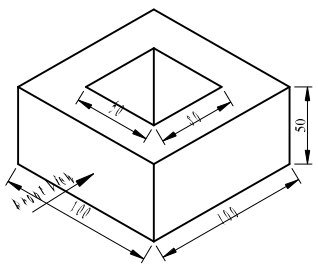
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**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | A point 'M' is 30 mm in front of VP and 20 mm above HP. Another point N is 15 mm behind VP and 25 mm below HP. The horizontal distance between the points parallel to XY line is 50 mm. Draw the projections of the points M and N. | 8 |
| 1 (b) | Draw the projections of a straight line AB, 100 mm long, inclined at 45° to HP and 30° to VP. The end A is in HP and the end B is in VP. Find the shortest distance between the straight line AB and the line of intersection of planes of projection | 12 |
| | **OR** | |
| 2 | A pentagonal lamina of sides 25 mm is having side both on HP and VP. The surface of the lamina is inclined at an angle of 60° with HP. Draw the top and front views of the lamina. | 20 |
| | **Module – II** | |
| 3 | A pentagonal prism 25mm sides of base and 60 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and appears to be inclined to VP at 45°. | 30 |
| | **OR** | |
| 4 | A square prism 35mm sides of base and 60 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and to VP at 30°. | 30 |
| | **Module – III** | |
| 5 | A square prism of base side 30mm and axis length 60mm is resting on HP on its base with all the vertical faces being equally inclined to VP. It is cut by an inclined plane $60^0$ to HP and perpendicular to VP and is passing through a point on the axis at a distance 50 mm form base. Draw the development of the lower portion of the prism | 25 |
| | **OR** | |
| 6 | A frustum of a square pyramid has its base 40mm sides, top 16mm sides and height 60mm, its axis is vertical and a side of its base is parallel to VP. Draw the projections of the frustum and show the development of lateral surfaces of it. | 25 |
| | **Module – IV** | |
| 7 | Draw isometric view of a hexagonal prism of side of base 40 mm and height 60 mm with a right circular cone of base 40 mm as diameter and altitude 50 mm, resting on its top such that the axis of both the solids are collinear. | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure  | 25 |

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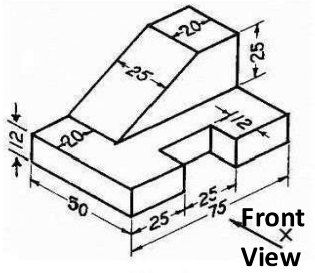
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**First / Second Semester B.E Degree Examination, June/July 2026**

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**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | Draw all the three views of a point P lying 60 mm below HP, 70 mm in front of VP and 40 mm from the RPP. Also, state the Quadrant in which it lies. | 8 |
| 1 (b) | A line AB 80 mm long has its end A 20 mm above HP and 30 mm in front of VP. It is inclined at 30° to HP and 45° to VP. Draw the projections of the line and find apparent lengths and apparent inclinations. | 12 |
| | **OR** | |
| 2 | A mirror 30 mm x 40 mm is inclined to the wall such that its front view is a square of 30 mm side. The longer sides of the mirror appear perpendicular to both HP and VP. Find the inclination of the mirror with the wall. | 20 |
| | **Module – II** | |
| 3 | A square prism 35mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the prism when the axis is inclined to HP at $45^0$ | 30 |
| | **OR** | |
| 4 | A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the pyramid when the axis is inclined to HP at $40^0$ | 30 |
| | **Module – III** | |
| 5 | A square pyramid of 35mm base edge and 60mm height rests with its base on HP with its entire base edges equally inclined to VP. It is cut by a plane perpendicular to VP and inclined to HP at 60°, passing through the extreme right corner of base. Draw the development of lateral surface of pyramid. | 25 |
| | **OR** | |
| 6 | A regular pentagonal pyramid of side of base 35mm and altitude 65mm has its base on HP with a side of base perpendicular to VP. The pyramid is cut by section plane which is perpendicular to VP and inclined at 30° to HP. The cutting plane meets the axis of the pyramid at a point 30mm below the vertex. Obtain the development of the remaining part of the pyramid | 25 |
| | **Module – IV** | |
| 7 | A hemisphere of diameter 50 mm is centrally resting on top of a square prism of base side 60 mm and height 30 mm such that the curved surface of hemisphere is touching the top face of the prism. Draw its isometric projections. | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure   | 25 |

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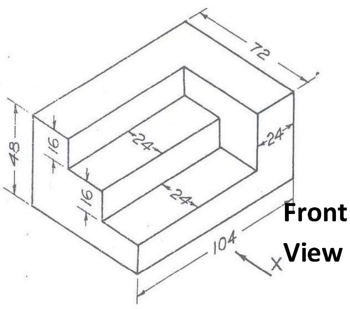
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**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max.Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| **1(a)** | Draw the projections of the following points on the same XY line. Name the Quadrants in which they lie.i)A – 30 mm above HP and 35 mm in front of VP, iii) D – 35 below HP and 30 mm in front of VP. | **8** |
| **1 (b)** | A line AB 80 mm long is inclined to HP at 30° and inclined to VP at 45°. Draw front and top views of line and determine their lengths. Also, measure the perpendicular distance of end B from both HP & VP. | **12** |
| | **OR** | |
| **2** | A pentagonal lamina of sides 25 mm is having a side both on HP and VP. The corner opposite to the side on which it rests is 15 mm above HP. Draw the top and front views of the lamina. | **20** |
| | **Module – II** | |
| **3** | A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30°. Draw the projections of the pyramid when the axis is inclined to HP at 40°. | **30** |
| | **OR** | |
| **4** | A hexagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its edges of the base. Draw the projections of the pyramid when the axis is inclined to HP at 45° and to VP at 30°. | **30** |
| | **Module – III** | |
| **5** | A square prism of base side 30mm and axis length 60mm is resting on HP on its base with all the vertical faces being equally inclined to VP. It is cut by an inclined plane 60° to HP and perpendicular to VP and is passing through a point on the axis at a distance 15mm form its top face. Draw the development of the lower portion of the prism. | **25** |
| | **OR** | |
| **6** | A vertical cylinder of base diameter 50mm and axis length 60mm is cut by two planes which are perpendicular to VP and inclined at 45° to HP and passing through either side from the center point of the top face. Draw the development of the lateral surface of the cylinder. | **25** |
| | **Module – IV** | |
| **7** | A square prism of base side 30 mm and length 70 mm is resting on its rectangular face on top of a square slab side 70 mm and 25 mm thick. Draw the isometric view of the combination. | **25** |
| | **OR** | |
| **8** | Draw the top view, front view and side view of the following figure   | **25** |

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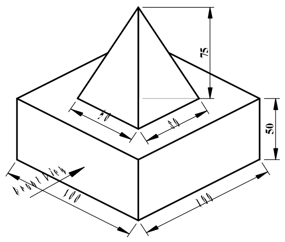
**1BCEDC/M/EC/E/S103/203**

**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | Draw the projections of the following points on the same XY line, keeping convenient distance between each other projectors. Name the Quadrants in which they lie.i) P – 20 mm above HP and 35 mm in front of VP. ii) R – 40 mm above HP and on VP and iii) S – 35 mm below HP and 30 mm behind VP. | 8 |
| 1 (b) | A line AB measuring 70 mm has its end A 15 mm in front of VP and 20 mm above HP and the other end B is 60 mm in front of VP and 50 mm above HP. Draw the projections of the line and find the inclinations of the line with both the reference planes of projections. | 12 |
| | OR | |
| 2 | A regular hexagonal lamina of sides 25 mm is lying in such a way that one of its sides on HP while the side opposite to the side on which it rests is on VP. If the lamina makes 60° to HP. Draw the projections of the lamina. | 20 |
| | Module – II | |
| 3 | A hexagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and appears to be inclined to VP at 45° | 30 |
| | OR | |
| 4 | A hexagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its slant triangular faces. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45° | 30 |
| | Module – III | |
| 5 | A rectangular prism of base 40mm x 25mm and height 65mm rests on HP on its base with the longer base side inclined at 30° to VP. It is cut by a plane inclined at 40° to HP; perpendicular to VP cuts the axis at its mid height. Draw the development of the remaining portion of the prism. | 25 |
| | OR | |
| 6 | A right regular cylinder of diameter 50 mm and height 65 mmcut by section plane inclined at 30° to its axis and passes through the midpoint of the axis. Draw the development of the bottom portion of the cylinder | 25 |
| | Module – IV | |
| 7 | A hemisphere of diameter 50 mm is centrally resting on top of a square prism of base side 60 mm and height 30 mm such that the curved surface of hemisphere is touching the top face of the prism. Draw its isometric view. | 25 |
| | OR | |
| 8 | Draw the top view, front view and side view of the following figure   | 25 |

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## CBCS 2025- SCHEME

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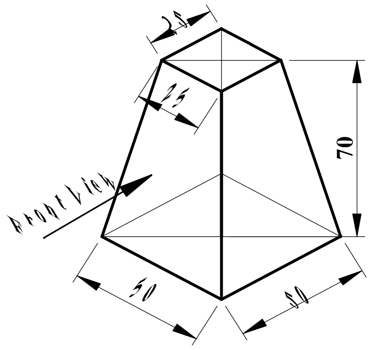
**1BCEDC/M/EC/E/S103/203**

**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | A point G is 25 mm below HP and situated in the third quadrant. Its shortest distance from the intersection of XY and X1Y1 is 45 mm. Draw its projections and its distance from VP. | 8 |
| 1 (b) | A line AB 60 mm long has one of its extremities 20 mm in front of VP and 15 mm above HP. The line is inclined at 25° to HP and 40° to VP. Draw its top view and front views. | 12 |
| | **OR** | |
| 2 | An equilateral triangular lamia of 25 mm side lies on one of its sides on HP. The lamina makes 45° with HP and one of its medians is inclined at 40° to VP. Draw its projections. | 20 |
| | **Module – II** | |
| 3 | A square prism 35mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the prism when the axis is inclined to HP at $45^0$ | 30 |
| | **OR** | |
| 4 | A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the pyramid when the axis is inclined to HP at $40^0$ | 30 |
| | **Module – III** | |
| 5 | A hexagonal pyramid of sides 35mm and altitude 65mm is resting on HP on its base with two of the base sides perpendicular to VP. The pyramid is cut by a plane inclined at 30° to HP and perpendicular to VP and is intersecting the axis at 30mm above the base. Draw the development of the remaining portion of the pyramid | 25 |
| | **OR** | |
| 6 | Draw the development of the lateral surface of a truncated vertical cylinder, 40mm diameter of base and height 50 mm, the truncated flat surface of the cylinder bisects the axis at 60° to it. | 25 |
| | **Module – IV** | |
| 7 | A rectangular pyramid of base 40 mm x 25 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric view of the combination | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure  | 25 |

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## CBCS 2025- SCHEME

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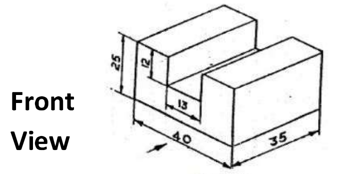
**1BCEDC/M/EC/E/S103/203**

**First / Second Semester B.E Degree Examination, June/July 2026**

# COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | A point 'M' is 30 mm in front of VP and 20 mm above HP. Another point N is 15 mm behind VP and 25 mm below HP. The horizontal distance between the points parallel to XY line is 50 mm. Draw the projections of the points M and N and join their front and top views. Draw the right side view for the point N only. | 8 |
| 1 (b) | The top view of a line 75 mm long measures 50 mm. The end P is 30 mm in front of VP and 15 mm above HP. The end Q is 15 mm in front of VP and above HP. Draw the projections of the line and finds its true inclinations with HP and VP. | 12 |
| | OR | |
| 2 | A pentagonal lamina having edges 25 mm is placed on one of its corners on HP such that the perpendicular bisector of the edge passing through the corner on which the lamina rests is inclined at 30° to HP and 45° VP. Draw the top and front views of the lamina. | 20 |
| | Module – II | |
| 3 | A hexagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its slant edge. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45° | 30 |
| | OR | |
| 4 | A hexagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40°and to VP at 30°. | 30 |
| | Module – III | |
| 5 | A vertical cylinder of base diameter 50mm and axis length 60mm is cut by two planes which are perpendicular to VP and inclined at 45° to HP and passing through either side from the center point of the top face. Draw the development of the lateral surface of the cylinder. | 25 |
| | OR | |
| 6 | A pentagonal prism of 30mm side of base and height 50mm lies with its base on HP such that one of the rectangular faces is inclined at 40° to VP. It is cut by a cutting inclined at 30° to the axis passing through a point on it 30mm above the base. Develop the bottom portion of the prism. | 25 |
| | Module – IV | |
| 7 | The frustum of a square pyramid of base side 40 mm, top 20mm and height 60 mm rests on the center of the top of a square block of side 60 mm and height 20 mm. The base edges of the pyramid are parallel to the top edges of the square block. Draw the isometric view of the combination of solids | 25 |
| | OR | |
| 8 | Draw the top view, front view and side view of the following figure   Figure 7 | 25 |

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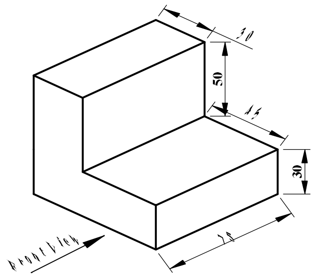
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**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| **1(a)** | A point P is on HP and 30 mm in front of VP. Another point Q is on VP and 40 mm above HP. The distance between their projectors parallel to XY line is 50 mm. Find the distance between their front and top views of the points P and Q. | **8** |
| **1 (b)** | The top view of a line 75 mm long measures 50 mm. The end P is 30 mm in front of VP and 15 mm above HP. The end Q is 15 mm in front of VP and above HP. Draw the projections of the line and finds its true inclinations with HP and VP. | **12** |
| | **OR** | |
| **2** | A circular lamina of 50 mm diameter is standing with one of its points on the rim on HP and the lamina inclined at 45° to HP. The diameter at right angles to the diameter, which is passing through the point on which the lamina rests, is parallel to VP. Draw its projections | **20** |
| | **Module – II** | |
| **3** | A hexagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and to VP at 30°. | **30** |
| | **OR** | |
| **4** | A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at $30^0$. Draw the projections of the pyramid when the axis is inclined to HP at $40^0$ | **30** |
| | **Module – III** | |
| **5** | A rectangular prism of base size 25mm × 40mm and axis length 65mm is resting on HP on its base with the longer side of the base inclined at 30° to VP. It is cut by a plane inclined at 40° to HP and perpendicular to VP and passes through extreme left corner of base. Draw the development of the lateral surface of the remaining portion of the prism. | **25** |
| | **OR** | |
| **6** | Draw the development of the lateral surface of a truncated vertical cylinder, 40mm diameter of base and height 50 mm, the truncated flat surface of the cylinder bisects the axis at 60° to it. | **25** |
| | **Module – IV** | |
| **7** | A rectangular pyramid of base 40 mm x 25 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric view of the combination. | **25** |
| | **OR** | |
| **8** | Draw the top view, front view and side view of the following figure   | **25** |

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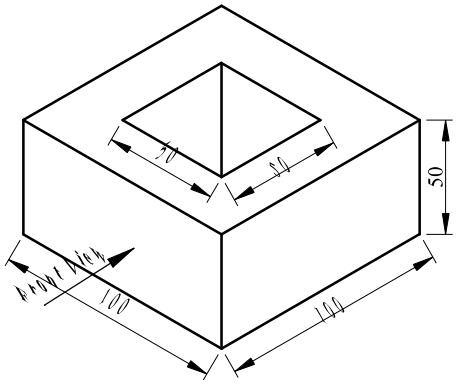
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**First / Second Semester B.E Degree Examination, June/July 2026**

## COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours** **COMMON TO ALL BRANCHES** **Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| 1(a) | A point A is 20 mm above HP and 25 mm in front of VP. Another point B is 25 mm behind VP and 40 mm below HP. Draw their projections when the distances between their projectors parallel to XY line is zero mm. Add the right side view only to point B. | 8 |
| 1 (b) | A line AB 60 mm long has one of its extremities 20 mm in front of VP and 15 mm above HP. The line is inclined at 25°to HP and 40° to VP. Draw its top view and front views. | 12 |
| | **OR** | |
| 2 | A 30°-60° setsquare of 60 mm longest side, is so kept such that the longest side is in HP, making an angle of 30° with VP. The set square itself is inclined at 45° to HP. Draw the projections of the setsquare. | 20 |
| | **Module – II** | |
| 3 | A pentagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its slant edges. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45°. | 30 |
| | **OR** | |
| 4 | A hexagonal prism 25 mm sides of base and 50 mm axis length rests on HP on one of its edges. Draw the projections of the prism when the axis is inclined to HP at 45° to VP at 30°. | 30 |
| | **Module – III** | |
| 5 | A square prism of base side 30mm and axis length 60mm is resting on HP on its base with all the vertical faces being equally inclined to VP. It is cut by an inclined plane $60^0$ to HP and perpendicular to VP and is passing through a point on the axis at a distance 15mm form its top face. Draw the development of the lower portion of the prism | 25 |
| | **OR** | |
| 6 | Draw the development of the lateral surface of a truncated vertical cylinder, 40mm diameter of base and height 50 mm, the truncated flat surface of the cylinder bisects the axis at 60° to it. | 25 |
| | **Module – IV** | |
| 7 | A cone of base diameter 50 mm and height 40 mm is placed centrally on the top face of a square slab side of 80 mm and height 20 mm. Draw the isometric view of the combination. | 25 |
| | **OR** | |
| 8 | Draw the top view, front view and side view of the following figure   | 25 |

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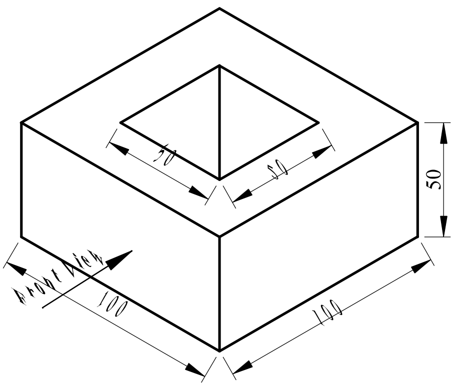
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### First / Second Semester B.E Degree Examination, June/July 2026

# COMPUTER AIDED ENGINEERING DRAWING

**Time: 3 Hours**　　　**COMMON TO ALL BRANCHES**　　　**Max. Marks: 100**

**Note**: i) Answer one full question from each Module, ii) Grid sheet may be provided for Sketching and iii) CAD must be in A4 Sheet only

| Q. No. | Module – I | Marks |
|---|---|---|
| **1(a)** | A point A is 20 mm above HP and 25 mm in front of VP. Another point B is 25 mm behind VP and 40 mm below HP. Draw their projections when the distances between their projectors parallel to XY line is zero mm. Add the right side view only to point B. | **8** |
| **1 (b)** | A line AB 60 mm long has one of its extremities 20 mm in front of VP and 15 mm above HP. The line is inclined at 25°to HP and 40° to VP. Draw its top view and front views. | **12** |
| | **OR** | |
| **2** | A 30°-60° setsquare of 60 mm longest side, is so kept such that the longest side is in HP, making an angle of 30° with VP. The set square itself is inclined at 45° to HP. Draw the projections of the setsquare. | **20** |
| | **Module – II** | |
| **3** | A pentagonal pyramid 25mm sides of base and 50 mm axis length rests on HP on one of its slant edges. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45°. | **30** |
| | **OR** | |
| **4** | A hexagonal prism 25 mm sides of base and 50 mm axis length rests on HP on one of its edges. Draw the projections of the prism when the axis is inclined to HP at 45° to VP at 30°. | **30** |
| | **Module – III** | |
| **5** | A square prism of base side 30mm and axis length 60mm is resting on HP on its base with all the vertical faces being equally inclined to VP. It is cut by an inclined plane $60^0$ to HP and perpendicular to VP and is passing through a point on the axis at a distance 15mm form its top face. Draw the development of the lower portion of the prism | **25** |
| | **OR** | |
| **6** | Draw the development of the lateral surface of a truncated vertical cylinder, 40mm diameter of base and height 50 mm, the truncated flat surface of the cylinder bisects the axis at 60° to it. | **25** |
| | **Module – IV** | |
| **7** | A cone of base diameter 50 mm and height 40 mm is placed centrally on the top face of a square slab side of 80 mm and height 20 mm. Draw the isometric view of the combination. | **25** |
| | **OR** | |
| **8** | Draw the top view, front view and side view of the following figure   | **25** |

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BESCK204D

# Second Semester B.E./B.Tech. Degree Examination, June/July 2026
# Introduction to Mechanical Engineering

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Briefly explain the role of mechanical engineer in industry and society. | 10 | L2 | CO1 |
| | b. | Explain the emerging trends of mechanical engineering in<br>i) Manufacturing ii) Automotives iii) Aeronautics iv) Energy sectors. | 10 | L2 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | With a neat sketch, explain the working of nuclear power plant. What are its merits and demerits? | 10 | L2 | CO1 |
| | b. | Write a note on Global warming and ozone layer depletion. | 10 | L2 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | With a neat sketch, explain :<br>i) Turning ii) Facing iii) Knurling iv) Boring v) Reaming. | 10 | L2 | CO1 |
| | b. | Explain the working principle of drilling and milling machine. | 10 | L2 | CO1 |
| | | **OR** | | | |
| Q.4 | a. | With a neat sketch, explain the components of CNC machine. | 10 | L2 | CO2 |
| | b. | Explain the steps involved in 3D printing. | 10 | L2 | CO2 |
| | | **Module – 3** | | | |
| Q.5 | a. | State the function of following IC engine parts :<br>i) Piston ii) Connecting rod iii) Crank shaft<br>iv) Piston rings v) Cam shaft vi) Fly wheel<br>vii) Governor viii) Spark plug ix) Fuel injector x) Fins. | 10 | L1 | CO3 |
| | b. | With a neat sketch, explain the working of four stroke diesel engine. Show the process on P-V diagram. | 10 | L2 | CO3 |

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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.6** | **a.** | Write the advantages and disadvantages of Electric Vehicle. | **10** | **L1** | **CO3** |
| | **b.** | With a neat sketch, explain the components of Hybrid Vehicle. | **10** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | List out the applications of grey cast iron and white cast iron. | **10** | **L1** | **CO4** |
| | **b.** | List out the applications of Aluminium and its alloys | **10** | **L1** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | With a neat sketch, explain the working of Gas Welding. Also list out its merits and demerits. | **10** | **L1,2** | **CO4** |
| | **b.** | Write a note on :<br>i) Smart materials ii) Ceramics. | **10** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | With a neat sketch, explain the configurations of robots. | **10** | **L2** | **CO5** |
| | **b.** | Explain different types of automation. | **10** | **L2** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | With a block diagram, briefly explain the elements of automation. | **10** | **L2** | **CO5** |
| | **b.** | Explain the components of physical design of IoT. | **10** | **L2** | **CO5** |

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**BESCK204E**

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026

# Introduction to C Programming

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | **Module – 1** | **M** | **L** | **C** |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Write a structure of a C program with an example. | **10** | **L2** | **CO1** |
| | **b.** | Explain an Identifier. What are the rules to define an identifier? | **04** | **L2** | **CO1** |
| | **c.** | Define the following terms with an example:<br>(i) Algorithm (ii) Flowchart (iii) Pseudocode | **06** | **L1** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Explain different input output statements in C with appropriate syntax and example. | **07** | **L2** | **CO1** |
| | **b.** | What is a Computer? Write the characteristics of computer. | **06** | **L2** | **CO1** |
| | **c.** | Illustrate the use of file types in C with a suitable example program. | **07** | **L3** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain the relational and logical operators used in C with suitable examples. | **07** | **L2** | **CO2** |
| | **b.** | Compare the working of 'while' and 'do-while' along with their syntax. | **06** | **L3** | **CO2** |
| | **c.** | Write a C program to find the largest of three numbers using tunary operator. | **07** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain the syntax and working of switch case statement. Write a C program to determine whether an entered character is vowel or not. | **10** | **L2** | **CO2** |
| | **b.** | Demonstrate the working of break and continue statement with suitable example. | **10** | **L3** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Discuss the various ways of passing parameter to the function. | **07** | **L2** | **CO3** |
| | **b.** | Explain the different type of storage classes. | **07** | **L2** | **CO3** |
| | **c.** | Write a C program to sort the given set of N numbers using Bubble Sort technique. | **06** | **L2** | **CO3** |



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| | | **OR** | | | |
| **Q.6** | **a.** | Write a C program to implement the use of functions. Your program should include function declaration, definition, call and passing of arguments. Explain each part briefly. | **10** | **L2** | **CO3** |
| | **b.** | What is a Recursive Function? Write a C program to find power of a number. | **05** | **L2** | **CO3** |
| | **c.** | Explain initializing the array elements with a suitable example. | **05** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Describe a two dimensional array and describe the steps involved in its declaration, initialization and elements access with an example. | **10** | **L3** | **CO4** |
| | **b.** | Illustrate the concept of a string in C and provide the syntax for declaring and initializing a string variable, including an example. | **10** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Write a C program to perform addition of two matrices. | **07** | **L3** | **CO4** |
| | **b.** | What are Strings? Mention the reading strings and writing strings along with the syntax. | **07** | **L2** | **CO4** |
| | **c.** | List the applications of array. | **06** | **L1** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Write a C program to implement structure to read, write and compute average marks and the student scoring above and below the average marks for a class of N students. | **10** | **L3** | **CO5** |
| | **b.** | Write a C program using pointer to compute the sum and mean of all elements stored in an array of N real numbers. | **05** | **L3** | **CO5** |
| | **c.** | Write a C program to perform basic string operations such as length and comparison. | **05** | **L3** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Write a C program to read a sentence and count the number of words in the sentence. | **06** | **L2** | **CO5** |
| | **b.** | Write a C program to swap two integer values using pointer. | **07** | **L3** | **CO5** |
| | **c.** | Explain with suitable example how the members of a structure are accessed. | **07** | **L2** | **CO5** |

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BETCK105E

# First Semester B.E./B.Tech. Degree Examination, June/July 2026
## Renewable Energy Sources

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Define Renewable Energy Source and discuss renewable energy availability in India and World Wide. | **10** | **L2** | **CO1** |
| | **b.** | Write short notes on fundamental and social implications of Renewable Energy. | **10** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Briefly describe Solar and Wind Energy. | **10** | **L2** | **CO1** |
| | **b.** | Write short notes on oil shale and Internet of Energy (IoE). | **10** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Define :<br>i) Diffused radiation<br>ii) Beam radiation<br>iii) Irradiance<br>iv) Solar constant | **8** | **L1** | **CO2** |
| | **b.** | With a neat diagram, explain construction and working of pyranometer and sunshine recorder. | **12** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | With a neat sketch explain the function of main components of solar Flate plate collector. | **10** | **L2** | **CO2** |
| | **b.** | With a neat diagram explain solar pond Electric Power Plant. | **5** | **L1** | **CO2** |
| | **c.** | Write the advantages, disadvantages and applications of solar energy. | **5** | **L1** | **CO2** |



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| | | **Module – 3** | | | |
| **Q.5** | **a.** | What are the major problems associated with wind power plant? | **6** | **L1** | **CO3** |
| | **b.** | With a neat sketch, explain the working of Wind Energy Conversion System (WECS). | **8** | **L2** | **CO3** |
| | **c.** | Derive the expression for power developed due to wind. | **6** | **L1** | **CO3** |
| | | **OR** | | | |
| **Q.6** | **a.** | Explain the working principle of Savonius and Darrieus Rotor. | **10** | **L2** | **CO3** |
| | **b.** | Explain with sketch down draft gasifier. | **10** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Define Tide and what are the characteristics of Tides. | **6** | **L1** | **CO4** |
| | **b.** | Explain the Single Basin and Double Basin systems of tidal power harnessing. | **8** | **L2** | **CO4** |
| | **c.** | What are the advantages and limitations of wave energy? | **6** | **L1** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | With the block diagram, explain the working of closed cycle OTEC. | **10** | **L2** | **CO4** |
| | **b.** | What are the problems associated with OTEC. | **10** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Explain the working principle of Molten Carbonate Fuel Cell. | **10** | **L2** | **CO5** |
| | **b.** | Discuss the advantages and disadvantages of Hydrogen Energy. | **10** | **L2** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Describe various methods of storage of hydrogen. | **10** | **L2** | **CO5** |
| | **b.** | Explain Zero Energy Concepts. | **10** | **L2** | **CO5** |

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BETCK105I

# First Semester B.E/B.Tech. Degree Examination, June/July 2026
## Introduction for Cyber Security

Time: 3 hrs. Max. Marks:100

**Note:** *1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| 1 | a. | Define Cybercrime, discuss the origin of cybercrime. | 6 | L2 | CO1 |
| | b. | Explain the following crimes :<br>i) Forgery<br>ii) Cyber terrorism<br>iii) Web Jacking. | 6 | L2 | CO1 |
| | c. | Explain the types of Attacks in Cyber Security. | 8 | L2 | CO1 |
| | | **OR** | | | |
| 2 | a. | Explain the Botnet Menance with diagram. | 6 | L2 | CO2 |
| | b. | Discuss the following crime with examples :<br>i) Phishing<br>ii) Spanning<br>iii) Cyber defamation. | 6 | L2 | CO2 |
| | c. | What is the purpose of hacking, explain hacking with examples. | 8 | L2 | CO2 |
| | | **Module – 2** | | | |
| 3 | a. | What is Social Engineering? Explain with example. | 6 | L2 | CO2 |
| | b. | Explain types of Stalkers. | 6 | L2 | CO1 |
| | c. | Explain the Zero Day Attack. | 8 | L2 | CO1 |
| | | **OR** | | | |
| 4 | a. | How are Cyber Crimes classified/categorized? Explain with example. | 6 | L2 | CO2 |
| | b. | Explain the Ports and Ports Scanning in cyber offenses. | 6 | L2 | CO2 |
| | c. | Analyze the working of cyber cafes, and how are creating the path for cyber crimes? | 8 | L3 | CO1 |



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| | | **Module – 3** | | | |
| **5** | a. | Differentiate between Proxy Server and Anonymizer. | **6** | **L3** | **CO3** |
| | b. | Elaborate the Steganography and Steganalysis. How criminals use these methods? | **6** | **L2** | **CO3** |
| | c. | How Keyloggers can be used to commit a cyber crime? | **8** | **L3** | **CO3** |
| | | **OR** | | | |
| **6** | a. | Differentiate between DOS and DDOS attack. | **6** | **L3** | **CO3** |
| | b. | Explain the concept of virus and worms. | **6** | **L2** | **CO3** |
| | c. | How Trozen Horses and Back Doors are taken access into the computer analyze. | **8** | **L3** | **CO3** |
| | | **Module – 4** | | | |
| **7** | a. | Differentiate between Spam and Hoax mails. | **6** | **L3** | **CO4** |
| | b. | Explain Phishing Toolkits with examples. | **6** | **L2** | **CO4** |
| | c. | Elaborate on the different techniques of identity theft. | **8** | **L3** | **CO4** |
| | | **OR** | | | |
| **8** | a. | Differentiate between XSS – Cross Site Scripting and XSRF Cross Scripting Request Forgery. | **6** | **L3** | **CO4** |
| | b. | Explain Spear phishing with example. | **6** | **L2** | **CO4** |
| | c. | Explain how can information be classified in identity theft. | **8** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **9** | a. | Differentiate between Computer Security and Computer Forensics. | **6** | **L3** | **CO5** |
| | b. | Briefly explain RFC2822 in Forensic Analysis of Email. | **4** | **L2** | **CO5** |
| | c. | Discuss the following phases of forensics life cycles.<br>i) Preparation and Identification<br>ii) Collection and Recording. | **10** | **L2** | **CO5** |
| | | **OR** | | | |
| **10** | a. | Differentiate between Cyber Forensics and Digital Evidence. | **6** | **L3** | **CO5** |
| | b. | Explain the Network Forensics. | **4** | **L2** | **CO5** |
| | c. | With a neat diagram explain process model for understanding a seizure and handling of forensic evidence legal framework. | **10** | **L2** | **CO5** |



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BETCK205B

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026

# Green Buildings

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M: Marks, L: Bloom's level, C: Course outcomes.***

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Describe the advantages of using various stones in construction and explain their properties. | **08** | **L2** | **CO1** |
| | **b.** | Explain the properties of bricks that make them suitable for green construction. | **12** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Explain properties and advantages of Lime-Pozzolana Cement. | **10** | **L2** | **CO1** |
| | **b.** | Discuss the various applications of Fiber reinforced cement and fiber reinforced polymer composites in construction. | **10** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain Flemish bonding in Brick masonry with a sketch and discuss how it influences the structural stability and aesthetic appeal of a wall. | **10** | **L2** | **CO2** |
| | **b.** | What is Cavity Wall? Discuss its advantages. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Discuss the role of 'NIRMITHI KENDRA' in promoting sustainable construction. | **10** | **L4** | **CO2** |
| | **b.** | Discuss the effectiveness of Ferro-Cement and Ferro-Concrete Constructions Techniques in sustainable projects. | **10** | **L4** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Discuss the causes and effects of Global Warming. | **12** | **L2** | **CO3** |
| | **b.** | Discuss the contribution of buildings towards Global Warming. | **08** | **L3** | **CO3** |

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| **OR** | | | | | |
| **Q.6** | **a.** | Discuss how initial cost of green building varies compared to conventional building. | **10** | **L2** | **CO3** |
| | **b.** | Discuss the global efforts to reduce carbon emissions in green buildings. | **10** | **L2** | **CO3** |
| **Module – 4** | | | | | |
| **Q.7** | **a.** | Explain the principles of the LEED rating system to assess the sustainability of a building project. | **12** | **L3** | **CO4** |
| | **b.** | List and explain the characteristics of sustainably managed materials. | **08** | **L2** | **CO4** |
| **OR** | | | | | |
| **Q.8** | **a.** | Evaluate how the 'GRIHA' rating systems focus on energy efficiency, water conservation and waste management can enhance the sustainability of a building. | **12** | **L2** | **CO3** |
| | **b.** | Explain the concept of integrated life-cycle design of materials and structures. | **08** | **L2** | **CO3** |
| **Module – 5** | | | | | |
| **Q.9** | **a.** | Explain the solar passive cooling and heating techniques in various climatic conditions. | **12** | **L4** | **CO5** |
| | **b.** | Discuss the impact of urban green cover on the built environment in terms of air quality, energy efficiency and residents well-being. | **08** | **L4** | **CO3** |
| **OR** | | | | | |
| **Q.10** | **a.** | Discuss the effectiveness of different solid waste and waste water treatment methods in reducing environmental impact. | **10** | **L4** | **CO5** |
| | **b.** | Discuss in detail about any case studies of Solar Passive Cooled and Heated buildings. | **10** | **L4** | **CO5** |

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BETCK205E

# Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Renewable Energy Sources

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Explain the need for renewable energy sources. | 07 | L1 | CO1 |
| | b. | Discuss India and Worldwide renewable energy availability. | 06 | L2 | CO1 |
| | c. | Briefly discuss about Internet of Energy (IoE). | 07 | L2 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Compare renewable and non-renewable energy sources. | 06 | L2 | CO1 |
| | b. | Brief about principle of ocean thermal energy. | 06 | L1 | CO1 |
| | c. | Explain with neat sketch, construction and working of geothermal energy power plant. | 08 | L2 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Briefly explain about Solar Energy. | 06 | L1 | CO2 |
| | b. | With a neat diagram , explain the construction and working of Pyrheliometer. | 06 | L2 | CO2 |
| | c. | With a neat diagram , explain the working of solar pond electric power plant. | 08 | L2 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | With a neat diagram , explain the working of Sunshine Recorder. | 07 | L2 | CO2 |
| | b. | With neat sketch , explain about Solar distillation process . | 07 | L2 | CO2 |
| | c. | Brief about (i) Beam radiation (ii) Diffuse radiation (iii) Solar constant | 06 | L1 | CO2 |
| | | **Module – 3** | | | |
| Q.5 | a. | With a block diagram , explain the working of wind energy conversion system. | 08 | L2 | CO3 |
| | b. | Explain the classification of wind energy conversion system. | 06 | L2 | CO3 |
| | c. | Compare horizontal axis and vertical axis wind turbine, in terms of construction and working. | 06 | L3 | CO3 |



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| | | **OR** | | | |
| **Q.6** | **a.** | With a neat sketch, explain the working of fixed dome digester. | **07** | **L2** | **CO3** |
| | **b.** | With a sketch , discuss the working of downdraft gassifier. | **07** | **L2** | **CO3** |
| | **c.** | Explain the role of photosynthesis process in energy plantation. | **06** | **L3** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | With a neat diagram , explain double basin tidal power plant. | **08** | **L2** | **CO4** |
| | **b.** | Explain advantages and limitations of wave energy. | **06** | **L2** | **CO4** |
| | **c.** | Explain tides as energy suppliers and their mechanics. | **06** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain with a neat sketch, the working of OTEC power plants. | **08** | **L2** | **CO4** |
| | **b.** | Explain about problems associated with OTEC. | **07** | **L1** | **CO4** |
| | **c.** | Differentiate between open cycle OTEC and closed cycle OTEC. | **05** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | What is Fuel Cell? Classify fuel cells. | **06** | **L2** | **CO5** |
| | **b.** | Explain the working of Hydrogen-Oxygen fuel cell with a neat sketch. | **08** | **L2** | **CO5** |
| | **c.** | Explain the benefits of hydrogen energy. | **06** | **L1** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Explain with a neat sketch, electrolysis method for hydrogen production. | **07** | **L2** | **CO5** |
| | **b.** | Briefly explain applications of hydrogen energy and problems associated with hydrogen energy. | **07** | **L2** | **CO5** |
| | **c.** | Explain about any 2 hydrogen storage methods. | **06** | **L1** | **CO5** |

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BETCK205H

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026
# Introduction to Internet of Things (IoT)

Time: 3 hrs. Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Define Computer Network? Explain the data transmission mode and discuss the various types of connection network. | 10 | L2 | CO1 |
| | b. | Summarization of the four broad categories of computer network based on reachability and explain them briefly. | 10 | L2 | CO1 |
| | | OR | | | |
| Q.2 | a. | Outline a neat diagram, explain the inter dependency of technology for IoT planes. | 10 | L2 | CO1 |
| | b. | Illustrate the network communication between two hosts following the OSI model with a neat diagram. | 10 | L2 | CO1 |
| | | Module – 2 | | | |
| Q.3 | a. | State a Sensor? List and explain the characteristics of sensor. | 10 | L2 | CO2 |
| | b. | List and generalize the quality of measurement depends on large number of factors and leads to errors. | 10 | L2 | CO2 |
| | | OR | | | |
| Q.4 | a. | Difference between Sensors, Actuator and Transducer. Explain the classification of Sensors. | 10 | L2 | CO2 |
| | b. | Justify the following :<br>i) Power rating<br>ii) Stiffness and Compliance<br>iii) Pneumatic Actuators<br>iv) Accuracy and Precision | 10 | L2 | CO2 |
| | | Module – 3 | | | |
| Q.5 | a. | Discuss the data formats and how storage source connects to internet and explain in IoT network traffic stream. | 10 | L2 | CO3 |
| | b. | Describe processing topologies and explain its types. | 10 | L2 | CO3 |



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| | | **OR** | | | |
| **Q.6** | **a.** | Outline an IoT deployment (processing offloading) with the various layers of processing involving different application domain with a diagram. | **10** | **L2** | **CO3** |
| | **b.** | Explain the IoT Device Design and Selection Considerations. | **10** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Define Virtualization. Summarize the advantages of virtualization. | **10** | **L2** | **CO4** |
| | **b.** | Discuss the architecture of sensor cloud platform. | **10** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | With the help of neat diagrams, explain the cloud models. | **10** | **L2** | **CO4** |
| | **b.** | Describe the service level agreement and its metrics in cloud computing. | **10** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Sketch the architecture of vehicular IoT and explain in detail. | **10** | **L2** | **CO5** |
| | **b.** | List and explain the advantages of vehicular IoT. | **10** | **L2** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Summarize the advantages of Machine Learning (ML) in IoT. | **10** | **L2** | **CO5** |
| | **b.** | Illustrate the hardware components and front end design features of AmbuSens System. | **10** | **L2** | **CO5** |

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**BETCK205I**

## Second Semester B.E./B.Tech. Degree Examination, June / July 2026
# Introduction to Cyber Security

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Define Cyber Crime and Cyber Security. List and explain categories of Cyber Security. | 10 | L1 | CO1 |
| | b. | Who are Cyber Criminals? What are the different types of Cyber Criminals? | 10 | L1 | CO1 |
| | | OR | | | |
| Q.2 | a. | Discuss the various classifications of cyber crimes. | 10 | L2 | CO1 |
| | b. | Identify how Industrial Spying is a cyber crime. | 10 | L2 | CO1 |
| | | Module – 2 | | | |
| Q.3 | a. | Write about e – mail spoofing, salami attack web jacking and password sniffing. | 10 | L2 | CO2 |
| | b. | What is Cyber Stalking? Explain in details how cyber stalking works. | 10 | L2 | CO1 |
| | | OR | | | |
| Q.4 | a. | Explain Social Engineering briefly with the classification of social engineering. | 10 | L2 | CO2 |
| | b. | What are Botnets? Explain how Botnets can be used for gainful purposes. | 10 | L3 | CO2 |
| | | Module – 3 | | | |
| Q.5 | a. | What are the different stages during the attack on the network? | 10 | L3 | CO3 |
| | b. | Define the following terms.<br>i) Proxy Servers and Anonymizer<br>ii) Phishing<br>iii) Keyloggers and Spywares<br>iv) Virus and Worms<br>v) Trojans and Backdoor virus | 10 | L2 | CO3 |
| | | OR | | | |
| Q.6 | a. | Explain the types of DOS attacks. | 10 | L2 | CO3 |
| | b. | Explain various traditional attacks on wireless networks. | 10 | L2 | CO3 |
| | | Module – 4 | | | |
| Q.7 | a. | Define Phishing. Explain any four methods of Phishing. | 10 | L2 | CO4 |
| | b. | Explain the types of Phishing scams. | 10 | L2 | CO4 |
| | | OR | | | |
| Q.8 | a. | What is Identity theft? Explain the types of identity theft. | 10 | L2 | CO4 |
| | b. | What are the different techniques of ID theft. | 10 | L2 | CO4 |
| | | Module – 5 | | | |
| Q.9 | a. | Define Digital Forensics. Briefly explain the digital forensic life cycle. | 10 | L1 | CO5 |
| | b. | Explain the roles and typical scenarios involved in digital forensics. | 10 | L2 | CO5 |
| | | OR | | | |
| Q.10 | a. | Discuss the various methods for extracting forensic evidence. | 10 | L2 | CO5 |
| | b. | Briefly explain about network forensics. | 10 | L2 | CO5 |

* * * * *

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CBCS SCHEME

BICOK107/207

USN | | | | | | | | | | |

Question Paper Version : A

# First/Second Semester B.E./B.Tech. Degree Examination,June/July 2026
## Indian Constitution

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

---

**1.** The first meeting of the constitution assembly was held on
a) 1945 b) 1946 c) 1947 d) 1948

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a) Dr. Rajendra Prasad b) Jawharalal Nehru
c) Dr. B.R Ambedkar d) Sardar Vallabhai Patel

**3.** The Indian constitution is
a) Based on conventions b) A brief document
c) An evolved constitution d) Written and bulky document

**4.** The president of the constituent assembly of India was
a) Pandit Jawaharalal Nehru b) Dr. Babu Rajendra Prasad
c) Mahatma Gandhi d) Dr. B.R. Ambedkar

**5.** The Cabinet Mission framed in
a) 1944 b) 1945 c) 1946 d) 1943

**6.** Who quoted "Freedom is my Birth right"
a) Jawaharalal Nehru b) Gandhiji
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**7.** Who is the father of Architect of Indian constitution?
a) J. Nehru b) S.S. Tilak c) Ambedkar d) Gandhiji

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a) Right against exploitation
b) Right to freedom of religion
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**12.** Article 19 provides
a) 5 freedoms b) 7 freedoms c) 6 freedoms d) 8 freedoms

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a) Kannada b) Hindi c) English d) Both b and c

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**16.** Which Article is applicable to both citizens and Non citizens
a) Article 14 b) Article 15 c) Article 16 d) Article 19

**17.** To which of the states, Article 370 in the Indian constitution is related
a) Arunachal Pradesh
b) Meghalaya
c) Himachal Pradesh
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**18.** All constitutional rights are
a) Fundamental rights
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a) unity and integrity of the nation
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**20.** How many schedules were there in our constitution
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**21.** The directive principles of the states policy directs the state to secure all the workers
a) Minimum wages
b) Standard wages
c) Fair wages
d) Living wages

**22.** Which part of the Indian constitution deals with the directive principles of state policy
a) Part I b) Part II c) Part III d) Part IV

**23.** By which Amendment act of the constitution of India were Fundamental duties were given
a) $46^{th}$ b) $42^{nd}$ c) $40^{th}$ d) $44^{th}$



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**24.** The directive principles of the state policy are
a) Non-Justiciable b) Justicible
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**25.** Fundamental duties were incorporated in constitution in the year
a)1950 b) 1955 c) 1976 d) 1997

**26.** Parliament consist of
a) Raj Sabha and Lok Sabha
b) Raj Sabha Lok Sabha and the President of India
c) Raj Sabha Lok Sabha President and Vice President India
d) Raj Sabha Lok Sabha and Spekar of Lok Sabha

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a) Nominated b) Appointed c) Selected d) Elected

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a) 25 Years b) 30 Years c) 35 Years d) 40 Years

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CBCS SCHEME

BICOK107/207

USN | | | | | | | | | |

Question Paper Version : A

**First/Second Semester B.E./B.Tech. Degree Examination,June/July 2026**

# Indian Constitution

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# CBCS SCHEME

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MMCC311A

## Third Semester MCA Degree Examination, June/July 2026
## Computer Networks

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Explain the concepts of Data Communications and Computer Networks. Discuss the components of data communication and explain how the Internet evolved as a global network. | 10 | L2 | CO1 |
| | b. | Describe various network topologies used in computer networks. Explain their structure, advantages, disadvantages, and typical applications. | 10 | L2 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Describe Broadcast Networks and Point-to-Point Networks. Compare them with suitable examples and highlight their advantages and limitations. | 10 | L2 | CO1 |
| | b. | Compare Server-Based LANs and Peer-to-Peer LANs. For a small startup and a large enterprise, identify which LAN type is suitable and explain why. | 10 | L3 | C O1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Explain the design issues of network layers. Discuss how layering helps in simplifying network communication. | 10 | L2 | CO1 |
| | b. | Explain the ISO–OSI reference model. Describe the functions of each of the seven layers with a neat diagram. | 10 | L2 | CO1 |
| | | **OR** | | | |
| Q.4 | a. | Describe the protocol hierarchy used in computer networks. Explain the role of protocols at different layers with suitable examples. | 10 | L2 | CO2 |
| | b. | Map the following networking functions to the appropriate OSI layers and justify your answers:<br>a) Error detection<br>b) Routing<br>c) Session management<br>d) Encryption<br>e) Framing | 10 | L3 | CO1 |
| | | **Module – 3** | | | |
| Q.5 | a. | Explain the concept of transmission media in data communication. Classify transmission media into guided and unguided media with suitable examples. | 10 | L2 | CO2 |
| | b. | Describe Switching Techniques and list the types. For the following applications, choose the most appropriate switching technique and justify your answer:<br>a) Traditional telephone call<br>b) Internet data transfer<br>c) Email communication | 10 | L3 | CO3 |



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| | | | | | |
|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.6** | **a.** | Describe the construction and working of fiber optic cables. Explain why fiber optics is preferred for high-speed communication. | **10** | **L2** | **CO2** |
| | **b.** | Explain twisted pair cables. Discuss their types, characteristics, advantages, and applications in computer networks with suitable diagrams. | **10** | **L2** | **CO2** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Describe various error detection techniques used in the Data Link Layer. Explain the working of Parity Check, Checksum, and CRC. | **10** | **L2** | **CO3** |
| | **b.** | Given a 7-bit Hamming code word 1011010,<br>a) Identify the parity bit positions.<br>b) Determine whether an error has occurred.<br>c) If an error exists, locate and correct it. | **10** | **L3** | **CO3** |
| | | **OR** | | | |
| **Q.8** | **a.** | Explain the design issues of the Network Layer. Discuss addressing, routing, congestion control, and Quality of Service (QoS). | **10** | **L2** | **CO3** |
| | **b.** | Apply the Link State Routing Algorithm (Dijkstra's Algorithm) to determine the shortest path from Node A to all other nodes in the given network topology. Show all intermediate steps, routing tables, and the final shortest path tree.<br>(see link table below)<br>Assume Node A is the source node.<br>Use Dijkstra's algorithm to compute the shortest paths. | **10** | **L3** | **CO3** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Explain the Domain Name System (DNS). Describe the domain name space, domain resource records, and the role of domain name servers. | **10** | **L2** | **CO3** |
| | **b.** | Explain congestion control in the transport layer. Discuss why congestion occurs and the general techniques used to control it. | **10** | **L2** | **CO3** |
| | | **OR** | | | |
| **Q.10** | **a.** | A 7-bit data word 1011011 is transmitted using even parity. Determine the parity bit and show the transmitted data. If a single-bit error occurs during transmission, show how it can be detected. | **10** | **L2** | **CO3** |
| | **b.** | Illustrate the client–server interaction involved in accessing a web page. Explain the role of HTTP, and distinguish between static and dynamic web pages with examples. | **10** | **L3** | **CO3** |

Link table for Q.8 b.:

| Link | Cost |
|---|---|
| A – B | 2 |
| A – C | 5 |
| B – C | 1 |
| B – D | 2 |
| C – D | 3 |
| C – E | 1 |
| D – E | 2 |

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# CBCS SCHEME

**BIDTK158/258/22BD16**

USN | | | | | | | | | | |

**Question Paper Version : A**

## First/Second Semester B.E./B.Tech/B.Design Degree Examination, June/July 2026

## Innovation and Design Thinking

Time: 1 hr Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

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1. The main objective of the Design Thinking Research is a
   a) Testing the theory b) Refining the theory c) .Both a and b d) None of these

2. How many steps are there in Design – Thinking?
   a) 4 b) 3 c) 5 d) 6

3. When defining a problem, your problem statement should include solution?
   a) TRUE b) FALSE

4. MVP stand for
   a) Minimum Viable Product b) Minimum Viable process
   c) Minimum Variety Process d) Minimum Victory process

5. You would interview people to gain an understanding of how they feel during the ____ stage of OT
   a) Prototype b) Define c) Ideate d) Emphathize

6. Design Thinking is a Linear Process
   a) TRUE b) FALSE

7. What is the main focus of Design Thinking?
   a) The Designer b) The user c) The business d) Strategy

8. What is the output of the "Define" stage in DT?
   a) A list of potential problems b) A clear problem statement and user needs
   c) A working prototype d) User feedback and analysis



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**9.** "Frank Roboson" defined and coined the term
a) Design thinking b) Mind mapping c) MVP d) Hypothesis

**10.** Both "MVP" and "Prototype" are different.
a) TRUE b) FALSE

**11.** Collecting ____ is an important portion of testing a prototype in the test stage of Design Thinking (DT)
a) Pictures b) Money c) Feedback d) Emails

**12.** Mind mapping is needed on all types of conversation
a) TRUE b) FALSE

**13.** BPM helps to improve process communication, control and consistency
a) TRUE b) FALSE

**14.** Which of the following are NOT tools of Design thinking?
a) Co-creation b) Prototyping c) Mind-mapping d) On-line marketing

**15.** _____ is highly relatable and rounded fictional character, Generalized, but not stereotyped
a) Team b) Persona c) Customer d) Group

**16.** _____ is an example of a tool to understand users needs, wants, touch points and goals.
a) User testing b) User centered design c) Surveys d) Empathy maps

**17.** How many decisions are made in Empathy Map?
a) 2 b) 4 c) 7 d) 10

**18.** In collaborative design thinking what kind of communication is most powerful?
a) Synchronous b) Asynchronous c) Only a d) a and b

**19.** ____ is a tool for bringing to the surface the key assumptions underlying the business hypothesis.
a) Rapid concept development b) Co-creation c) Assumption testing d) All of these

**20.** Comprehensive thinking principle of DT does not include.
a) Relationship b) Collaboration c) Communication d) Supplier

**21.** ____ story telling is the most compelling type of story.
a) Aural b) Visual c) Textual d) All of these

**22.** Journey Mapping Considers Emotions
a) Yes b) No c) May be

**23.** In MPV, product canvas includes
a) Target b) Goal c) Scale d) All of these

**24.** Visualization is a tool of Design thinking would invoice presenting data through
a) Clear presentations b) Images and stories
c) Both a) and b) d) None of these



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**25.** The end goal of value chain analysis is to
a) Create better value for the customers
b) To set common scrolls and goals for value chain partners
c) Both a and b
d) None of these

**26.** Agile has a iterations of
a) 1 to 4 day b) 1 to 4 weeks c) 4 to 8 weeks d) 1 to 4 months

**27.** Design thinking approach for business challenge for change is ____
a) Story telling b) Humanization c) Sense making d) All of these

**28.** In V-MODEL every single phase in the development cycle, there is a directly allocated testing phase
a) TRUE b) FALSE

**29.** SLM stands for ___
a) Software Life Modeling b) Selective Laser Melting
c) Selective Lamination Modeling d) All of these

**30.** Standardization cannot make internal process more efficient and effective.
a) AGREE b) DISAGREE

**31.** Value Redefinition is ____
a) Design approach that helps to develop a new voice and meaning
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c) Crating Models
d) All of these

**32.** What is Information?
a) Instruction b) Data c) People d) All of these

**33.** What is meant by "SCRUM" in Agile methodology?
a) Prototype b) Framework c) Both a and b d) None of these

**34.** Personas become shorthand for ____
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**36.** Actual programming of software code is done during _____ step in the SDLC.
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**38.** Marketing objective and product strategy are main factors of
a) Artistic intent b) Providing planned outputs and Stylistic approaches
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**39.** What is the importance of prototyping in agile design thinking?
a) To quickly test and refine design ideas
b) To showcase design capabilities to stoke holders
c) To impress users with cutting edge technology
d) To ensure compliance with industry standards and regulations

**40.** Design thinking approach for business challenge in extreme competition is _____
a) Experience Design b) Sense Making
c) Humanization d) All of these

**41.** The key dimensions of experience design are ____
a) Scope b) Intensity c) Experience d) All of these

**42.** ____ Framework belongs to Agile Methodology
a) BOT b) SCRUM c) Hybrid d) BDD

**43.** The types of innovation by area of focus are
a) Radical b) Incremental c) Descriptive d) All of these

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a) IKEA b) IDEO c) IDEA d) IKEL

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**49.** Integrating design thinking in strategic innovation includes
a) Reviewing b) Simulating c) Conversing d) All of these

**50.** In the context of strategic innovation, which element is most critical for including a 'Creative Culture' within a design thinking process

a) Prioritizing immediate market feasibility
b) Psychological safety to encourage productive failure
c) Strict adherence to established industry hierarchies
d) Limiting the ideation phase to one section or department to maintain focus

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# CBCS SCHEME

**BIDTK158/258/22BD16**

USN | | | | | | | | | | |

**Question Paper Version : A**

## First/Second Semester B.E./B.Tech/B.Design Degree Examination, June/July 2026

## Innovation and Design Thinking

Time: 1 hr Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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1. The main objective of the Design Thinking Research is a
   a) Testing the theory b) Refining the theory c) .Both a and b d) None of these

2. How many steps are there in Design – Thinking?
   a) 4 b) 3 c) 5 d) 6

3. When defining a problem, your problem statement should include solution?
   a) TRUE b) FALSE

4. MVP stand for
   a) Minimum Viable Product b) Minimum Viable process
   c) Minimum Variety Process d) Minimum Victory process

5. You would interview people to gain an understanding of how they feel during the ____ stage of OT
   a) Prototype b) Define c) Ideate d) Emphathize

6. Design Thinking is a Linear Process
   a) TRUE b) FALSE

7. What is the main focus of Design Thinking?
   a) The Designer b) The user c) The business d) Strategy

8. What is the output of the "Define" stage in DT?
   a) A list of potential problems b) A clear problem statement and user needs
   c) A working prototype d) User feedback and analysis



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**9.** "Frank Roboson" defined and coined the term
a) Design thinking b) Mind mapping c) MVP d) Hypothesis

**10.** Both "MVP" and "Prototype" are different.
a) TRUE b) FALSE

**11.** Collecting ____ is an important portion of testing a prototype in the test stage of Design Thinking (DT)
a) Pictures b) Money c) Feedback d) Emails

**12.** Mind mapping is needed on all types of conversation
a) TRUE b) FALSE

**13.** BPM helps to improve process communication, control and consistency
a) TRUE b) FALSE

**14.** Which of the following are NOT tools of Design thinking?
a) Co-creation b) Prototyping c) Mind-mapping d) On-line marketing

**15.** _____ is highly relatable and rounded fictional character, Generalized, but not stereotyped
a) Team b) Persona c) Customer d) Group

**16.** _____ is an example of a tool to understand users needs, wants, touch points and goals.
a) User testing b) User centered design c) Surveys d) Empathy maps

**17.** How many decisions are made in Empathy Map?
a) 2 b) 4 c) 7 d) 10

**18.** In collaborative design thinking what kind of communication is most powerful?
a) Synchronous b) Asynchronous c) Only a d) a and b

**19.** ____ is a tool for bringing to the surface the key assumptions underlying the business hypothesis.
a) Rapid concept development b) Co-creation c) Assumption testing d) All of these

**20.** Comprehensive thinking principle of DT does not include.
a) Relationship b) Collaboration c) Communication d) Supplier

**21.** ____ story telling is the most compelling type of story.
a) Aural b) Visual c) Textual d) All of these

**22.** Journey Mapping Considers Emotions
a) Yes b) No c) May be

**23.** In MPV, product canvas includes
a) Target b) Goal c) Scale d) All of these

**24.** Visualization is a tool of Design thinking would invoice presenting data through
a) Clear presentations b) Images and stories
c) Both a) and b) d) None of these



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**25.** The end goal of value chain analysis is to
a) Create better value for the customers
b) To set common scrolls and goals for value chain partners
c) Both a and b
d) None of these

**26.** Agile has a iterations of
a) 1 to 4 day b) 1 to 4 weeks c) 4 to 8 weeks d) 1 to 4 months

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* * * * *

CBCS SCHEME

**BKBKK107/207**

USN | | | | | | | | | | |

**Question Paper Version : A**

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Balake Kannada

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
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**Note : Fill in the blank by translating the given Kannada word to English**

1. Arogya _____
a) Health b) Enjoy c) Wealth d) Parikshe

2. Huduga _____
a) Girl b) Father c) Boy d) Younger

3. HaNNu ____
a) Vegitable b) Fruit c) Seeds d) Flower

4. Kallu ____
a) Stick b) Growth c) Stone d) Soil

5. Naayi _____
a) Crow b) Pig c) Sheep d) Dog

6. Nagu ____
a) Laugh b) Packet c) Bag d) Cry

7. Santosha ____
a) Sad b) Enjoy c) Pain d) Happy

8. Samskrathi _____
a) Culture b) Nature c) Temple d) Festival

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**Note : Translate the following English word to Kannada**

**9.** House ____
a) VaraanDa b) Mane c) Mara d) Nela

**10.** Library ____
a) Office b) Granthalaya c) House d) Workshop

**11.** Red _____
a) Bili b) Niili c) Kempu d) Kappu

**12.** Child _____
a) magu b) makkalu c) hennu d) ganDu

**13.** Potato ____
a) iiruLLi b) BeLLuLLi c) aalugeDDe d) arisiNa

**14.** Rice ____
a) JooLa b) Akki c) raagi d) togari

**Note : Make a own sentence : -**

**15.** Kappu means
a) black b) red c) green d) blue

**16.** Adu means
a) but b) it c) bit d) sit

**17.** hesaru means
a) shame b) game c) name d) blame

**18.** Pennu means
a) nun b) fun c) gun d) pen

**19.** Lesson means
a) PaaTa b) Nota c) Oota d) Kaata

**Note : Translate the following Kannada sentence into English sentence :-**

**20.** Nimma hesaru eenu?
a) Who are you b) What is your name
c) What is this d) What are this

**21.** Nimma KaaleeJu yavudu?
a) What is your college? b) Where is your college?
c) That is your college? d) None of these

**22.** Maneya olage
a) inside the house b) my house
c) outside the house d) where is your house



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**23.** MaLe barthide.
a) rain b) rain sleeping c) raining d) rain coming

**24.** Devaru oLLeyadu maaDali
a) May God bless you b) Bless you
c) God give you d) Good luck God

**25.** Shubha dina
a) Today b) Good day c) Bad day d) Day

**26.** Thumbha oLLe geLeya
a) very nice friend b) very beautiful friend
c) Good friend d) Nice friend

**Note : Write the Appropriate words given in the bracket.**

**27.** adu nanna ____
a) pustaka b) putaka c) pustha d) pustdka

**28.** ninna ____
a) hesaru b) hessaru c) hesaru enu d) hessaru

**29.** ___ yake bandey?
a) eligeeke b) alligeeke c) elligeeke d) ellige

**30.** Naanu beLagge ____ bande
a) bega b) beega c) ega d) nenne

**31.** edu nanna __
a) mane b) maane c) mune d) manna

**32.** adu ____ kaaleJu
a) namma b) adu c) idu d) pustaka

**33.** mara edu ____
a) sarvanaama b) kriyaapada c) naamapada d) samaasa

**34.** namma kaaleJu ____ suru agabahudu
a) nenne b) yaavaaga c) ega d) thakshaNa

**35.** eradu embudu
a) sankye b) pada c) svara d) gumpu

**36.** Aa pustakada ____ estu?
a) Retu b) bele c) belegalu d) raitu

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**Note : Translate following English sentence to Kannada sentence : -**

**37.** The books is there
a) pustaka alli ede b) pustake elli ide c) pustaka kodu d) adu pustaka

**38.** Who is he?
a) avanu yaaru b) avarene c) avalu yaaru d) adu yaaru

**39.** That is house
a) aa mane b) adu mane c) Ii mane d) avara mane

**40.** This is computer.
a) adu computer b) idu computer c) aa computer d) avara computer

**41.** She is your daughter.
a) avalu ninna thangi b) avalue ninna amma
c) avalu ninna magaLu d) avalu nanna magaLu

**42.** How would you write 'sun'?
a) chandra b) soorya c) nakshatra d) aakaasha

**43.** How would you write 'Frog'?
a) aame b) haavu c) kappe d) paksi

**44.** How would you write "Thank you'
a) vandanegaLu b) holleyadaagali c) subhasayagaLu d) banni

**45.** How would you write "who told to him"?
a) avalige yaaru heLiare? b) avanige yaaru heLiidaru?
c) ivarige yaaru heLiddu? d) ninage yaaru heLiddu?

**46.** How would you write 'student'
a) gurugalu b) maKKalu c) vidyaarthi d) magu

**47.** How would you write "Don't come"?
a) barabeDa b) ba c) banni d) hogu

**48.** How would you write "I came yesterday"
a) naanu ninne bande b) naanu ega bande
c) naanu evathu bande d) naanu naaLe baruve

**49.** How would you write "Computer' in kannada
a) Telivision b) gaNakayantra c) granthalaya d) kurchi

**50.** How would you write "when is the kannada class"?
a) kannada class yaavaaga? b) kannada class mugitaa?
c) kannada class suruvayata? d) kannada class naaLena?

* * * * *

**BKSKK107/207**

USN | | | | | | | | | | |

**Question Paper Version : A**

**First/Second Semester B.E/B.Tech Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ

Time: 1 hr. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಧರ್ಮ ಸಹಿಷ್ಣುತೆ ಕನ್ನಡಿಗರ ಪರಂಪರೆ ಇದನ್ನು ಯಾವ ಶಾಸನ ಹೇಳುತ್ತದೆ.
   a) ಜೈನ ಶಾಸನ b) ಬೇಲೂರಿನ ಶಾಸನ c) ಹಲ್ಮಿಡಿ d) ಚಂದ್ರವಳಿ

2. ಏಕೀಕರಣದ ಪ್ರಯತ್ನಕ್ಕೆ ____ ರಲ್ಲಿ ನಾಗಪುರದಲ್ಲಿ ನಡೆದ ಕಾಂಗ್ರೇಸಿನ ಅಧಿವೇಶನದಲ್ಲಿ ಒಪ್ಪಿಗೆ ದೊರೆಯಿತು.
   a) 1955 b) 1920 c) 1907 d) 1956

3. ಕರ್ನಾಟಕದ ಗತವೈಭವ ಕೃತಿಯನ್ನು ರಚಿಸಿದವರು ಯಾರು?
   a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ಕಾರಂತ d) ಆಲೂರು ವೆಂಕಟರಾಯರು

4. ಕನ್ನಡದ ಏಕೀಕರಣದ ಅಭಿಪ್ರಾಯವನ್ನು ಮೇಲಿನ ಅಧಿಕಾರಿಗಳಿಗೆ ತಿಳಿಸಿದ ಕಲೆಕ್ಟರ.
   a) ಪಂಡಿತ b) ಅಧಿಕಾರಿ c) ಸರ್ ಥಾಮಸ್ ಮೆನ್ರೋ d) ಲಾರ್ಡ ಮೌಂಟ

5. ಕರ್ನಾಟಕ ರಾಜ್ಯದ ಮೊದಲಿನ ಹೆಸರು.
   a) ಮಂಗಳೂರು b) ಮೈಸೂರು ರಾಜ್ಯ c) ಕರುನಾಡು d) ಬೆಂಗಳೂರು

6. ಭಾಷೆಗೆ ಅದರ ಬಳಕೆಯ ನೆಲದಲ್ಲಿ ಎಷ್ಟು ಕೌಶಲಗಳಿರುತ್ತವೆ.
   a) 4 b) 6 c) 10 d) 8

7. ಪ್ರೊ. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಯಾವ ಜಿಲ್ಲೆಯಲ್ಲಿ ಜನಸಿದರು.
   a) ಮೈಸೂರು b) ಕೊಲಾರ c) ಬಿದರ d) ಧಾರವಾಡ

8. ಅರಸನಿಗೆ ಗಂಡು ಮಗುವಾದರೆ ____ ಕೊಟ್ಟು ಒಬ್ಬ ಪ್ರಾಣ ಬಿಟ್ಟಿದುಂಟು.
   a) ಪ್ರಾಣ b) ಪ್ರಶಸ್ತಿ c) ಸಿಡಿತಲೆ d) ಬಹುಮಾನ

9. _____ ರಲ್ಲಿ ಜ್ಯಡಿಸಿಯಲ್ ಮ್ಯಾಜಿಸ್ಟ್ರೀಟ್ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತಿರ್ಪಿನ ಭಾಷೆ ಕನ್ನಡ ಇರಬೇಕೆಂದು ತಿರ್ಮಾನಿಸಲಾಯಿತು.
   a) 1974 b) 1950 c) 1979 d) 1980

10. "ಗೊಗೆ ಕಣ್ಣ ಕಾಣಲರಿಯದೆ ರವಿಯ ಬಯ್ದದು" ಈ ವಚನಕಾರರು.
   a) ಅಲ್ಲಮ ಪ್ರಭು b) ಬಸವಣ್ಣ c) ಅಕ್ಕಮಹಾದೇವಿ d) ಮಾರಯ್ಯ

11. ಕರಿ ಘನ ಪದದ ಅರ್ಥ.
   a) ಕತ್ತಲೆ b) ಘೊರ c) ದೇವರು d) ದುರ್ಬಲತೆ

12. ಗುರು, ಲಿಂಗ ಮತ್ತು ಜಂಗಮ ಈ ಮೂರಕ್ಕಿಂತ ಯಾವುದು ಅತ್ಯಂತ ಶ್ರೇಷ್ಠವಾದುದು.
   a) ದೇವರು b) ಕಾಯಕ c) ಪೂಜೆ d) ಶ್ರಮ

13. ದಾಸ ಸಾಹಿತ್ಯದಲ್ಲಿ ಶ್ರೇಷ್ಠರಾದವರು ಯಾರು.
   a) ಅಲ್ಲಮಪ್ರಭು b) ಅಕ್ಕಮಹಾದೇವಿ c) ಕನಕದಾಸರು d) ಬಸವಣ್ಣ

14. ವಚನ ಮತ್ತು ಕಿರ್ತನೆಗಳ ನಂತರ ಕನ್ನಡದಲ್ಲಿ ಉದಯಿಸಿದ ಮತ್ತೊಂದು ಪ್ರಮುಖ ಪ್ರಕಾರವೆಂದರೆ _____
   a) ಹಾಡುಗಳು b) ನೃತ್ಯಗಳು c) ತತ್ವಪದಗಳು d) ಮಾತುಗಳು

15. ಅಂಗಕ್ಕೆ ಬಡತನವಲ್ಲದೆ ಮನಕ್ಕೆ ಬಡತನವುಂಟೇ ಈ ವಚನಕಾರರು
   a) ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯ b) ಅಲ್ಲಮಪ್ರಭು c) ಅಕ್ಕಮಹಾದೇವಿ d) ಆಯ್ದಕ್ಕಿ ಲಕ್ಕಮ್ಮ

16. "ಸಾವಿರ ಕೊಡೆಗಳ ಸುಟ್ಟು" ಈ ತತ್ವಪದಗಳ ರಚನಾಕಾರರು.
   A) ಶಿವಯೋಗಿ b) ಶಿಶುನಾಳ ಶರೀಫ c) ದಾಸರು d) ಕನಕದಾಸರು

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17. ಜಾನಪದ ಯಾವ ಸ್ವರೂಪದಲ್ಲಿ ವಿಸ್ತರಿಸುತ್ತದೆ.

a) ಲಿಖಿತ b) ಮೌಖಿಕ c) ಕಥನ d) ಒಗಟು

18. 'ಬಿಸುವ ಪದ' ಇದು ಒಂದು _____

a) ಜಾನಪದ ಗೀತೆ b) ಕಿರ್ತನೆ c) ತತ್ವಪದ d) ವಚನ

19. "ಮಂಕುತಿಮ್ಮನ ಕಗ್ಗ " ಕೃತಿಯನ್ನು ರಚಿಸಿದವರು.

a) ಡಿವಿಜಿ b) ಬೇಂದ್ರೆ c) ಮಾಸ್ತಿ d) ಕುವೆಂಪು

20. ಬಡಬಾನೆಲ ಪದದ ಅರ್ಥ.

a) ಆಕಾಶ b) ಬಡವರು c) ಸಮುದ್ರದೊಳಗಿನ ಬೆಂಕಿ d) ಕುರುಡ

21. ಶ್ರೀ ರಾಮಾಯಣ ದರ್ಶನಂ ಮಹಾಕಾವ್ಯ ಬರೆದವರು ಯಾರು?

a) ಕುವೆಂಪು b) ಡಿವಿಜಿ c) ಕಾರಂತರು d) ಬೇಂದ್ರೆ

22. ಕನ್ನಡಕ್ಕೆ ಎಂಟನೇಯ ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿಯನ್ನು ತಂದು ಕೊಟ್ಟವರು.

a) ಡಾ.ಜಿ.ಎಸ್ ಶಿವರುದ್ರಪ್ಪ b) ಚಂದ್ರಶೇಖರ ಕಂಬಾರ

c) ಸಿದ್ಧಲಿಂಗಯ್ಯಾ d) ಕೆ.ಎಸ್. ನರಸಿಂಹಸ್ವಾಮಿ

23. ಕನ್ನಡದ ಮೊದಲ ರಾಷ್ಟ್ರಕವಿ ಯಾರು?

a) ಕುವೆಂಪು b) ಗೋವಿಂದ ಪೈ c) ಶಿವರುದ್ರಪ್ಪ d) ಬೇಂದ್ರೆ

24. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರಿಗೆ ಬ್ರಿಟಿಷ್ ಸರ್ಕಾರ ನೀಡಿದ್ದ ಬಿರುದು ಯಾವುದು?

a) ಭಾರತ ರತ್ನ b) ಸರ್ c) ಇಂಜೀನಿಯರ್ d) ದಿವಾನ್

25. ' ಕುರುಡು ಕಾಂಚಾಣ' ಕವನದ ಕವಿ.

a) ಕುವೆಂಪು b) ಬೆಂದ್ರೆ c) ಚಂದ್ರಶೇಖರ ಕಂಬಾರ d) ಡಿವಿಜಿ

26. ಹೊಸಬಾಳಿನ ಗೀತೆ ಕವನದ ಕವಿ

a) ಕುವೆಂಪು b) ಮಾಸ್ತಿ c) ಬೇಂದ್ರೆ d) ಅಯ್ಯರ

27. ಜನರಿಗೆ ಅನ್ನಬ್ರಹ್ಮನಾಗಿ ಅವತಾರ ಪುರಷನಾಗಿ ಕಾಣಿಸಿಕೊಂಡವರು

a) ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು b) ಮೂರ್ತಿರಾವ c) ವಸುಧೇಂದ್ರ d) ದಿವಾನ

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28. ಯುಗಾದಿ ಕಥೆಯಲ್ಲಿ ಕನ್ನಡ ಶಾಲೆಯ ಮಾಸ್ತರರಾಗಿರುವವರು.
a) ಚೊಮನ್ನ b) ಗೊಪಣ್ಣ c) ರಾಜಣ್ಣ d) ಬಸವಣ್ಣ

29. ಸರ್ ಎಮ್ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಒಬ್ಬ
a) ಮೆಕ್ಯಾನಿಕಲ್ ಇಂಜಿನಿಯರ್ b) ಸಾಫ್ಟವೇರ್ ಇಂಜಿನಿಯರ್
c) ಸಿವಿಲ್ ಇಂಜಿನಿಯರ್ d) ಎಲೆಕ್ಟ್ರಿಕ್ ಇಂಜಿನಿಯರ್

30. ಯುಗಾದಿ ಕಥಿಯಲ್ಲಿ ಗೊಪಣ್ಣ ಮಾಸ್ತರರ ಮಗನ ಹೆಸರು.
a) ಪ್ರಹ್ಲಾದ b) ಕರಿಯ c) ಶಿವ d) ಗುರು

31. ಸಂಗೀತಪುರವು ಈ ಹಿಂದೆ ಯಾರ ಊರಾಗಿತ್ತು.
a) ಕುಣಬಿ b) ಜೈನ c) ಗಿರಿಜನ d) ನಾಗ

32. ಜೊಗ ಜಲಪಾತದಿಂದ ಎಷ್ಟೊಂದು ಶಕ್ತಿ ಪೋಲಾಗುತ್ತಿದೆ ಎಂದವರು.
a) ದೇವರಾಯ್ b) ಮೂರ್ತಿರಾವ
c) ಸರ್.ಎಮ್. ವಿಶ್ವೇಶ್ವರಯ್ಯ d) ಸರ್. ಥಾಮಸ್ ಮೆನ್ರೊ

33. ಡಾ. ಹಿ.ಚಿ.ಬೊರಲಿಂಗಯ್ಯನವರು ತಮ್ಮ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಯಾವ ಜನಾಂಗದವರ ಬದುಕನ್ನು ಪ್ರಸ್ತುತಪಡಿಸಿದ್ದಾರೆ.
a) ಕುಣಬಿ b) ಕಾಡುಜನ c) ಜೈನ d) ನಾಗ

34. ಕುಣಬಿ ಜನಾಂಗದವರು ಮೂಲತ ಯಾವ ರಾಜ್ಯದವರು.
a) ಮಹಾರಾಷ್ಟ್ರ b) ಕರ್ನಾಟಕ c) ಗೋವಾ d) ಆಂಧ್ರಪ್ರದೇಶ

35. ಮೆಗಾನೆ ಎಂದು ಹೆಸರು ಬರಲು ಕಾರಣ ಇದು _____ ಮದ್ಯ ಇರುವುದರಿಂದ
a) ಸಹ್ಯಾದ್ರಿ ಬೆಟ್ಟಗಳು b) ಹಿಮಾಲಯ ಬೆಟ್ಟ c) ಚಾಮುಂಡಿ ಬೆಟ್ಟ d) ಯಾವುದು ಅಲ್ಲ

36. _____ ಲವಣವನ್ನು ನೆರೆಳೆ, ನೀಲಿ, ಹಸಿರು ಬಣ್ಣಗಳನ್ನು ಪಡೆಯಲು ಮದ್ಯವರ್ತಿಯಾಗಿ ಬಳಸಲಾಗುತ್ತದೆ.
a) ಕಬ್ಬಿಣ b) ತಾಮ್ರ c) ಸತು d) ಉಪ್ಪು

37. " ಸಂಧ್ಯಾವಂದನೆ ಮಾಡಿದ್ರೇನೆ ಈ ಮನ್ಯಾಗ ಸ್ಥಳ" ಅಂತ ನಿಷ್ಠುರವಾಗಿ ಹೇಳಿದವರು ಯಾರು
a) ರುಕ್ಮಿಣಿ b) ಪ್ರಹ್ಲಾದ c) ಗೊಪಣ್ಣ d) ಸೊಮಣ್ಣ

38. ಭಾರತದಲ್ಲಿ ಬಟ್ಟೆಗಳಿಗೆ ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಸುಮಾರು ____ ಗಿಡಗಳಿವೆ.
a) 3000 b) 200 c) 500 d) 1000



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39. ಗೊಪಣ್ಣ ಮಾಸ್ತರರ್ ಸೊಸೆಯ ಹೆಸರು
a) ರುಕ್ಮಣಿ b) ಭಾರತಿ c) ರೇಖಾ d) ರಾಣಿ

40. _____ ಕಥೆಯಲ್ಲಿ ಬದಲಾದ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳಿಂದಾಗಿ ಒದ್ದಾಡುತ್ತಿರುವ ಹಿರಿಯ ಜೀವಿಯೊಬ್ಬನ ಅಸಿದಾಯ ಕಥೆಯನ್ನು ವಿವರಿಸಲಾಗಿದೆ.
a) ಯುಗಾದಿ b) ನಾದಲೀಲೆ c) ಕುರುಡಕಾಂಚಣ d) ಆಚರಣೆ

41. ಬಯಲುಸಿಮೆಯಿಂದ ಆಕಸ್ಮಿಕವಾಗಿ ಮೇಗಾನೆ ಸೇರಿರುವ ಲಕ್ಕಮ್ಮ ____ ಕಡೆಯವರು.
a) ಬಳ್ಳಾರಿ b) ಹಾಸನ c) ದಾವಣಗೆರೆ d) ಧಾರವಾಡ

42 "ದುಡಿದವನಿಗೆ ಪ್ರತಿಫಲ ದೊರೆಯಬೇಕು" ಎಂಬುದು ಯಾರ ತತ್ವ?
a) ಗಾಂದಿಜಿ b) ವಿಶ್ವೇಶ್ವರಯ್ಯ c) ಕುವೆಂಪು d) ಬಸವಣ್ಣ

43. ಬಟ್ಟೆಯ ಮೇಲಿನ ಮುದ್ರಣ ಕಲೆಯ ಮೂಲ ನೆಲ
a) ಭಾರತ b) ಟರ್ಕಿ c) ಗ್ರೀಸ್ d) ಅಫ್ಘನ್ನ

44. ಆಕಾಶಕ್ಕೆ ಎಣೆಯಂತಾಗಿರುವ ಬೆಟ್ಟ _____
a) ಸಹ್ಯಾದ್ರಿ b) ಹಿಮಾಲಯ c) ಯುಗಾದಿ d) ಚಾಮುಂಡಿ

45. ಅಪಾರ್ಟಮೆಂಟನ ಜನರೆಲ್ಲರೂ ಯಾರನ್ನು "ಒಲ್ಡ್ ಮ್ಯಾನ್"" ಎಂದು ಕರೆಯಲಾರಂಬಿಸಿದರು.
a) ರಾಜಣ್ಣ b) ಗೊಪಣ್ಣ c) ಸೊಮಣ್ಣ d) ಕರಿಮಸಾಬ

46. ಸರ್. ಎಮ್. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಜನಸಿದ ಊರು.
a) ಮಂಡ್ಯ b) ಮೈಸೂರು c) ಭದ್ರಾವತಿ d) ಮುದ್ದೇನಹಳ್ಳಿ

47. ಸಂವಿಧಾನದ ____ ನೇ ಅನುಚ್ಛೇದದ ಅನುಸಾರ ಆಯಾ ರಾಜ್ಯಗಳಲ್ಲಿ ಬಳಕೆಯಾಗುವ ಭಾಷೆಗಳನ್ನು ಆಡಳಿತ ಭಾಷೆಯೆಂದು ತಿರ್ಮಾನಿಸಲಾಯಿತು.
a) 340 ನೇ b) 343 ನೇ c) 350 ನೇ d) 300 ನೇ

48. ಕಿ.ಪೂ. ____ ವರ್ಷಗಳಿಂದಲೂ ಭಾರತಿಯ ಕರಕುಶಲ ಕಲೆಗಳಿಗೆ ಅಪಾರ ಬೆಡಿಕೆ ಇದೆ.
a) 1500 b) 1600 c) 1700 d) 1800

49. ಹೊಸ ಚಿಗುರು ____ ಕೊಡಿರಲು ಮರಸೊಬಗು.
a) ಎಲೆ b) ಕಾಂಡ c) ಹಸಿರು d) ಹಳೇಬೇರು

50. ಕಾಸೀಂಸಾಬರ ಗೆಳೆಯನ ಹೆಸರು
a) ಗೊಪಣ್ಣ b) ಪ್ರಹ್ಲಾದ c) ಇಸ್ಮಾಯಿಲ್ d) ಅಸ್ಲಾಂ



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**BKSKK107/207**

USN | | | | | | | | | | |

**Question Paper Version : A**

**First/Second Semester B.E/B.Tech Degree Examination, June/July 2026**

# ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ

Time: 1 hr. Max. Marks: 50

## ಸೂಚನೆಗಳು

1. ಎಲ್ಲ ೫೦ ಪ್ರಶ್ನೆಗಳಿಗೂ ಉತ್ತರಿಸಿರಿ. ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಒಂದು ಅಂಕ.
2. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯು.ಎಸ್.ಎನ್ ಸಂಖ್ಯೆ ಹಾಗೂ ಪಶ್ನೆ ಪತ್ರಿಕೆಯ ಶ್ರೇಣಿಯನ್ನು ಅಂದರೆ A, B, C ಅಥವಾ D ಯನ್ನು ತಪ್ಪಿಲ್ಲದಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಗುರುತಿಸುವುದು ಅಭ್ಯರ್ಥಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿರುತ್ತದೆ.
3. ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ನಿಗದಿಪಡಿಸಿರುವ ಸ್ಥಳದಲ್ಲಿ ಭರ್ತಿಮಾಡದೆ ಹಾಗೆಯೇ ಬಿಟ್ಟಲ್ಲಿ ಅಥವಾ ಭರ್ತಿಮಾಡಿದ ಮಾಹಿತಿಯಲ್ಲಿ ಯಾವುದೇ ವ್ಯತ್ಯಾಸವಿದ್ದಲ್ಲಿ ಅಂತಹ ಉತ್ತರ ಪತ್ರಿಕೆಗಳನ್ನು ರದ್ದು ಪಡಿಸಲಾಗುವುದು.
4. ಕೇವಲ ಒಂದು ಉತ್ತರವನ್ನು ಮಾತ್ರ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಗುರುತಿಸತಕ್ಕದ್ದು. ಒಂದೆ ಪ್ರಶ್ನೆಗೆ ಎರಡು ಉತ್ತರವನ್ನು ಗುರುತಿಸುವುದು ಅಮಾನ್ಯ.
5. ಎಲ್ಲಾ ಉತ್ತರಗಳನ್ನು ನಿಮಗೆ ಒದಗಿಸಲಾದ ಓ.ಎಂ.ಆರ್ ಉತ್ತರ ಪತ್ರಿಕೆಯ ಹಾಳೆಯ ಮೇಲೆ ಕಪ್ಪು ಅಥವಾ ನೀಲಿ ಶಾಹಿಯ ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ನಿನಿಂದ ಗುರುತು ಮಾಡಬೇಕು.

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1. ಧರ್ಮ ಸಹಿಷ್ಣುತೆ ಕನ್ನಡಿಗರ ಪರಂಪರೆ ಇದನ್ನು ಯಾವ ಶಾಸನ ಹೇಳುತ್ತದೆ.
   a) ಜೈನ ಶಾಸನ b) ಬೇಲೂರಿನ ಶಾಸನ c) ಹಲ್ಮಿಡಿ d) ಚಂದ್ರವಳಿ

2. ಏಕೀಕರಣದ ಪ್ರಯತ್ನಕ್ಕೆ ____ ರಲ್ಲಿ ನಾಗಪುರದಲ್ಲಿ ನಡೆದ ಕಾಂಗ್ರೇಸಿನ ಅಧಿವೇಶನದಲ್ಲಿ ಒಪ್ಪಿಗೆ ದೊರೆಯಿತು.
   a) 1955 b) 1920 c) 1907 d) 1956

3. ಕರ್ನಾಟಕದ ಗತವೈಭವ ಕೃತಿಯನ್ನು ರಚಿಸಿದವರು ಯಾರು?
   a) ಬೇಂದ್ರೆ b) ಕುವೆಂಪು c) ಕಾರಂತ d) ಆಲೂರು ವೆಂಕಟರಾಯರು

4. ಕನ್ನಡದ ಏಕೀಕರಣದ ಅಭಿಪ್ರಾಯವನ್ನು ಮೇಲಿನ ಅಧಿಕಾರಿಗಳಿಗೆ ತಿಳಿಸಿದ ಕಲೆಕ್ಟರ.
   a) ಪಂಡಿತ b) ಅಧಿಕಾರಿ c) ಸರ್ ಥಾಮಸ್ ಮೆನ್ರೋ d) ಲಾರ್ಡ ಮೌಂಟ

5. ಕರ್ನಾಟಕ ರಾಜ್ಯದ ಮೊದಲಿನ ಹೆಸರು.
   a) ಮಂಗಳೂರು b) ಮೈಸೂರು ರಾಜ್ಯ c) ಕರುನಾಡು d) ಬೆಂಗಳೂರು

6. ಭಾಷೆಗೆ ಅದರ ಬಳಕೆಯ ನೆಲದಲ್ಲಿ ಎಷ್ಟು ಕೌಶಲಗಳಿರುತ್ತವೆ.
   a) 4 b) 6 c) 10 d) 8

7. ಪ್ರೊ. ಹಂಪ ನಾಗರಾಜಯ್ಯನವರು ಯಾವ ಜಿಲ್ಲೆಯಲ್ಲಿ ಜನಸಿದರು.
   a) ಮೈಸೂರು b) ಕೊಲಾರ c) ಬಿದರ d) ಧಾರವಾಡ

8. ಅರಸನಿಗೆ ಗಂಡು ಮಗುವಾದರೆ ____ ಕೊಟ್ಟು ಒಬ್ಬ ಪ್ರಾಣ ಬಿಟ್ಟಿದುಂಟು.
   a) ಪ್ರಾಣ b) ಪ್ರಶಸ್ತಿ c) ಸಿಡಿತಲೆ d) ಬಹುಮಾನ

9. _____ ರಲ್ಲಿ ಜ್ಯಡಿಸಿಯಲ್ ಮ್ಯಾಜಿಸ್ಟ್ರೀಟ್ ನ್ಯಾಯಾಲಯದ ವಾದ ಮತ್ತು ತಿರ್ಪಿನ ಭಾಷೆ ಕನ್ನಡ ಇರಬೇಕೆಂದು ತಿರ್ಮಾನಿಸಲಾಯಿತು.
   a) 1974 b) 1950 c) 1979 d) 1980

10. "ಗೊಗೆ ಕಣ್ಣ ಕಾಣಲರಿಯದೆ ರವಿಯ ಬಯ್ದದು" ಈ ವಚನಕಾರರು.
   a) ಅಲ್ಲಮ ಪ್ರಭು b) ಬಸವಣ್ಣ c) ಅಕ್ಕಮಹಾದೇವಿ d) ಮಾರಯ್ಯ

11. ಕರಿ ಘನ ಪದದ ಅರ್ಥ.
   a) ಕತ್ತಲೆ b) ಘೊರ c) ದೇವರು d) ದುರ್ಬಲತೆ

12. ಗುರು, ಲಿಂಗ ಮತ್ತು ಜಂಗಮ ಈ ಮೂರಕ್ಕಿಂತ ಯಾವುದು ಅತ್ಯಂತ ಶ್ರೇಷ್ಠವಾದುದು.
   a) ದೇವರು b) ಕಾಯಕ c) ಪೂಜೆ d) ಶ್ರಮ

13. ದಾಸ ಸಾಹಿತ್ಯದಲ್ಲಿ ಶ್ರೇಷ್ಠರಾದವರು ಯಾರು.
   a) ಅಲ್ಲಮಪ್ರಭು b) ಅಕ್ಕಮಹಾದೇವಿ c) ಕನಕದಾಸರು d) ಬಸವಣ್ಣ

14. ವಚನ ಮತ್ತು ಕಿರ್ತನೆಗಳ ನಂತರ ಕನ್ನಡದಲ್ಲಿ ಉದಯಿಸಿದ ಮತ್ತೊಂದು ಪ್ರಮುಖ ಪ್ರಕಾರವೆಂದರೆ _____
   a) ಹಾಡುಗಳು b) ನೃತ್ಯಗಳು c) ತತ್ವಪದಗಳು d) ಮಾತುಗಳು

15. ಅಂಗಕ್ಕೆ ಬಡತನವಲ್ಲದೆ ಮನಕ್ಕೆ ಬಡತನವುಂಟೇ ಈ ವಚನಕಾರರು
   a) ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯ b) ಅಲ್ಲಮಪ್ರಭು c) ಅಕ್ಕಮಹಾದೇವಿ d) ಆಯ್ದಕ್ಕಿ ಲಕ್ಕಮ್ಮ

16. "ಸಾವಿರ ಕೊಡೆಗಳ ಸುಟ್ಟು" ಈ ತತ್ವಪದಗಳ ರಚನಾಕಾರರು.
   A) ಶಿವಯೋಗಿ b) ಶಿಶುನಾಳ ಶರೀಫ c) ದಾಸರು d) ಕನಕದಾಸರು

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17. ಜಾನಪದ ಯಾವ ಸ್ವರೂಪದಲ್ಲಿ ವಿಸ್ತರಿಸುತ್ತದೆ.

a) ಲಿಖಿತ b) ಮೌಖಿಕ c) ಕಥನ d) ಒಗಟು

18. 'ಬಿಸುವ ಪದ' ಇದು ಒಂದು _____

a) ಜಾನಪದ ಗೀತೆ b) ಕಿರ್ತನೆ c) ತತ್ವಪದ d) ವಚನ

19. "ಮಂಕುತಿಮ್ಮನ ಕಗ್ಗ " ಕೃತಿಯನ್ನು ರಚಿಸಿದವರು.

a) ಡಿವಿಜಿ b) ಬೇಂದ್ರೆ c) ಮಾಸ್ತಿ d) ಕುವೆಂಪು

20. ಬಡಬಾನೆಲ ಪದದ ಅರ್ಥ.

a) ಆಕಾಶ b) ಬಡವರು c) ಸಮುದ್ರದೊಳಗಿನ ಬೆಂಕಿ d) ಕುರುಡ

21. ಶ್ರೀ ರಾಮಾಯಣ ದರ್ಶನಂ ಮಹಾಕಾವ್ಯ ಬರೆದವರು ಯಾರು?

a) ಕುವೆಂಪು b) ಡಿವಿಜಿ c) ಕಾರಂತರು d) ಬೇಂದ್ರೆ

22. ಕನ್ನಡಕ್ಕೆ ಎಂಟನೇಯ ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿಯನ್ನು ತಂದು ಕೊಟ್ಟವರು.

a) ಡಾ.ಜಿ.ಎಸ್ ಶಿವರುದ್ರಪ್ಪ b) ಚಂದ್ರಶೇಖರ ಕಂಬಾರ

c) ಸಿದ್ಧಲಿಂಗಯ್ಯಾ d) ಕೆ.ಎಸ್. ನರಸಿಂಹಸ್ವಾಮಿ

23. ಕನ್ನಡದ ಮೊದಲ ರಾಷ್ಟ್ರಕವಿ ಯಾರು?

a) ಕುವೆಂಪು b) ಗೋವಿಂದ ಪೈ c) ಶಿವರುದ್ರಪ್ಪ d) ಬೇಂದ್ರೆ

24. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರಿಗೆ ಬ್ರಿಟಿಷ್ ಸರ್ಕಾರ ನೀಡಿದ್ದ ಬಿರುದು ಯಾವುದು?

a) ಭಾರತ ರತ್ನ b) ಸರ್ c) ಇಂಜೀನಿಯರ್ d) ದಿವಾನ್

25. ' ಕುರುಡು ಕಾಂಚಾಣ' ಕವನದ ಕವಿ.

a) ಕುವೆಂಪು b) ಬೆಂದ್ರೆ c) ಚಂದ್ರಶೇಖರ ಕಂಬಾರ d) ಡಿವಿಜಿ

26. ಹೊಸಬಾಳಿನ ಗೀತೆ ಕವನದ ಕವಿ

a) ಕುವೆಂಪು b) ಮಾಸ್ತಿ c) ಬೇಂದ್ರೆ d) ಅಯ್ಯರ

27. ಜನರಿಗೆ ಅನ್ನಬ್ರಹ್ಮನಾಗಿ ಅವತಾರ ಪುರಷನಾಗಿ ಕಾಣಿಸಿಕೊಂಡವರು

a) ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು b) ಮೂರ್ತಿರಾವ c) ವಸುಧೇಂದ್ರ d) ದಿವಾನ

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28. ಯುಗಾದಿ ಕಥೆಯಲ್ಲಿ ಕನ್ನಡ ಶಾಲೆಯ ಮಾಸ್ತರರಾಗಿರುವವರು.
a) ಚೊಮನ್ನ b) ಗೊಪಣ್ಣ c) ರಾಜಣ್ಣ d) ಬಸವಣ್ಣ

29. ಸರ್ ಎಮ್ ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಒಬ್ಬ
a) ಮೆಕ್ಯಾನಿಕಲ್ ಇಂಜಿನಿಯರ್ b) ಸಾಫ್ಟವೇರ್ ಇಂಜಿನಿಯರ್
c) ಸಿವಿಲ್ ಇಂಜಿನಿಯರ್ d) ಎಲೆಕ್ಟ್ರಿಕ್ ಇಂಜಿನಿಯರ್

30. ಯುಗಾದಿ ಕಥಿಯಲ್ಲಿ ಗೊಪಣ್ಣ ಮಾಸ್ತರರ ಮಗನ ಹೆಸರು.
a) ಪ್ರಹ್ಲಾದ b) ಕರಿಯ c) ಶಿವ d) ಗುರು

31. ಸಂಗೀತಪುರವು ಈ ಹಿಂದೆ ಯಾರ ಊರಾಗಿತ್ತು.
a) ಕುಣಬಿ b) ಜೈನ c) ಗಿರಿಜನ d) ನಾಗ

32. ಜೊಗ ಜಲಪಾತದಿಂದ ಎಷ್ಟೊಂದು ಶಕ್ತಿ ಪೋಲಾಗುತ್ತಿದೆ ಎಂದವರು.
a) ದೇವರಾಯ್ b) ಮೂರ್ತಿರಾವ
c) ಸರ್.ಎಮ್. ವಿಶ್ವೇಶ್ವರಯ್ಯ d) ಸರ್. ಥಾಮಸ್ ಮೆನ್ರೊ

33. ಡಾ. ಹಿ.ಚಿ.ಬೊರಲಿಂಗಯ್ಯನವರು ತಮ್ಮ ಪ್ರವಾಸ ಕಥನದಲ್ಲಿ ಯಾವ ಜನಾಂಗದವರ ಬದುಕನ್ನು ಪ್ರಸ್ತುತಪಡಿಸಿದ್ದಾರೆ.
a) ಕುಣಬಿ b) ಕಾಡುಜನ c) ಜೈನ d) ನಾಗ

34. ಕುಣಬಿ ಜನಾಂಗದವರು ಮೂಲತ ಯಾವ ರಾಜ್ಯದವರು.
a) ಮಹಾರಾಷ್ಟ್ರ b) ಕರ್ನಾಟಕ c) ಗೋವಾ d) ಆಂಧ್ರಪ್ರದೇಶ

35. ಮೆಗಾನೆ ಎಂದು ಹೆಸರು ಬರಲು ಕಾರಣ ಇದು _____ ಮದ್ಯ ಇರುವುದರಿಂದ
a) ಸಹ್ಯಾದ್ರಿ ಬೆಟ್ಟಗಳು b) ಹಿಮಾಲಯ ಬೆಟ್ಟ c) ಚಾಮುಂಡಿ ಬೆಟ್ಟ d) ಯಾವುದು ಅಲ್ಲ

36. _____ ಲವಣವನ್ನು ನೆರೆಳೆ, ನೀಲಿ, ಹಸಿರು ಬಣ್ಣಗಳನ್ನು ಪಡೆಯಲು ಮದ್ಯವರ್ತಿಯಾಗಿ ಬಳಸಲಾಗುತ್ತದೆ.
a) ಕಬ್ಬಿಣ b) ತಾಮ್ರ c) ಸತು d) ಉಪ್ಪು

37. " ಸಂಧ್ಯಾವಂದನೆ ಮಾಡಿದ್ರೇನೆ ಈ ಮನ್ಯಾಗ ಸ್ಥಳ" ಅಂತ ನಿಷ್ಠುರವಾಗಿ ಹೇಳಿದವರು ಯಾರು
a) ರುಕ್ಮಿಣಿ b) ಪ್ರಹ್ಲಾದ c) ಗೊಪಣ್ಣ d) ಸೊಮಣ್ಣ

38. ಭಾರತದಲ್ಲಿ ಬಟ್ಟೆಗಳಿಗೆ ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಸುಮಾರು ____ ಗಿಡಗಳಿವೆ.
a) 3000 b) 200 c) 500 d) 1000



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39. ಗೊಪಣ್ಣ ಮಾಸ್ತರರ್ ಸೊಸೆಯ ಹೆಸರು
a) ರುಕ್ಮಣಿ b) ಭಾರತಿ c) ರೇಖಾ d) ರಾಣಿ

40. _____ ಕಥೆಯಲ್ಲಿ ಬದಲಾದ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳಿಂದಾಗಿ ಒದ್ದಾಡುತ್ತಿರುವ ಹಿರಿಯ ಜೀವಿಯೊಬ್ಬನ ಅಸಿದಾಯ ಕಥೆಯನ್ನು ವಿವರಿಸಲಾಗಿದೆ.
a) ಯುಗಾದಿ b) ನಾದಲೀಲೆ c) ಕುರುಡಕಾಂಚಣ d) ಆಚರಣೆ

41. ಬಯಲುಸಿಮೆಯಿಂದ ಆಕಸ್ಮಿಕವಾಗಿ ಮೇಗಾನೆ ಸೇರಿರುವ ಲಕ್ಕಮ್ಮ ____ ಕಡೆಯವರು.
a) ಬಳ್ಳಾರಿ b) ಹಾಸನ c) ದಾವಣಗೆರೆ d) ಧಾರವಾಡ

42 "ದುಡಿದವನಿಗೆ ಪ್ರತಿಫಲ ದೊರೆಯಬೇಕು" ಎಂಬುದು ಯಾರ ತತ್ವ?
a) ಗಾಂದಿಜಿ b) ವಿಶ್ವೇಶ್ವರಯ್ಯ c) ಕುವೆಂಪು d) ಬಸವಣ್ಣ

43. ಬಟ್ಟೆಯ ಮೇಲಿನ ಮುದ್ರಣ ಕಲೆಯ ಮೂಲ ನೆಲ
a) ಭಾರತ b) ಟರ್ಕಿ c) ಗ್ರೀಸ್ d) ಅಫ್ಘನ್ನ

44. ಆಕಾಶಕ್ಕೆ ಎಣೆಯಂತಾಗಿರುವ ಬೆಟ್ಟ _____
a) ಸಹ್ಯಾದ್ರಿ b) ಹಿಮಾಲಯ c) ಯುಗಾದಿ d) ಚಾಮುಂಡಿ

45. ಅಪಾರ್ಟಮೆಂಟನ ಜನರೆಲ್ಲರೂ ಯಾರನ್ನು "ಒಲ್ಡ್ ಮ್ಯಾನ್"" ಎಂದು ಕರೆಯಲಾರಂಬಿಸಿದರು.
a) ರಾಜಣ್ಣ b) ಗೊಪಣ್ಣ c) ಸೊಮಣ್ಣ d) ಕರಿಮಸಾಬ

46. ಸರ್. ಎಮ್. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಜನಸಿದ ಊರು.
a) ಮಂಡ್ಯ b) ಮೈಸೂರು c) ಭದ್ರಾವತಿ d) ಮುದ್ದೇನಹಳ್ಳಿ

47. ಸಂವಿಧಾನದ ____ ನೇ ಅನುಚ್ಛೇದದ ಅನುಸಾರ ಆಯಾ ರಾಜ್ಯಗಳಲ್ಲಿ ಬಳಕೆಯಾಗುವ ಭಾಷೆಗಳನ್ನು ಆಡಳಿತ ಭಾಷೆಯೆಂದು ತಿರ್ಮಾನಿಸಲಾಯಿತು.
a) 340 ನೇ b) 343 ನೇ c) 350 ನೇ d) 300 ನೇ

48. ಕಿ.ಪೂ. ____ ವರ್ಷಗಳಿಂದಲೂ ಭಾರತೀಯ ಕರಕುಶಲ ಕಲೆಗಳಿಗೆ ಅಪಾರ ಬೆಡಿಕೆ ಇದೆ.
a) 1500 b) 1600 c) 1700 d) 1800

49. ಹೊಸ ಚಿಗುರು ____ ಕೊಡಿರಲು ಮರಸೊಬಗು.
a) ಎಲೆ b) ಕಾಂಡ c) ಹಸಿರು d) ಹಳೇಬೇರು

50. ಕಾಸೀಂಸಾಬರ ಗೆಳೆಯನ ಹೆಸರು
a) ಗೊಪಣ್ಣ b) ಪ್ರಹ್ಲಾದ c) ಇಸ್ಮಾಯಿಲ್ d) ಅಸ್ಲಾಂ



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**CBCS SCHEME**

USN

**BMATC101**

# First Semester B.E./B.Tech. Degree Examination, June/July 2026
## Mathematics – I for Civil Engg Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Hand Book is permitted.***

| | | **Module – 1** | **M** | **L** | **C** |
|---|---|---|---|---|---|
| **Q.1** | **a.** | With usual notations, prove that $\tan\phi = \frac{r d\theta}{dr}$. | **6** | **L2** | **CO1** |
| | **b.** | Find the angle between the curve $r = a(1 + \cos\theta)$ and $r = a(1 - \cos\theta)$ | **7** | **L2** | **CO1** |
| | **c.** | Find the radius of curvature for the curve $\sqrt{x} + \sqrt{y} = \sqrt{a}$ at the point $\left(\frac{a}{4}, \frac{a}{4}\right)$. | **7** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Derive an expression for the radius of curvature for a polar curve. | **7** | **L2** | **CO1** |
| | **b.** | Find the pedal equation of the curve $r = 4(1 + \cos\theta)$ | **8** | **L2** | **CO1** |
| | **c.** | Using modern mathematical tool, write a program/code to plot the curve $r = 2\|\cos 2\theta\|$. | **5** | **L3** | **CO5** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Expand sinx by Maclaurin's series upto the term containing $x^4$. | **6** | **L2** | **CO1** |
| | **b.** | If $u = f\left(\frac{x}{y}, \frac{y}{z}, \frac{z}{x}\right)$ prove that $\frac{\partial u}{\partial x} + \frac{\partial u}{\partial y} + \frac{\partial u}{\partial z} = 0$ | **7** | **L2** | **CO1** |
| | **c.** | Examine the function $f(x, y) = xy(a - x - y)$ for extreme values. | **7** | **L3** | **CO1** |

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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.4** | **a.** | If $z = e^{ax+by} f(ax - by)$, show that $b\frac{\partial z}{\partial x} + a\frac{\partial z}{\partial y} = 2abz$. | **7** | **L2** | **CO1** |
| | **b.** | If $u = x + 3y^2 - z^3$, $v = 4x^2yz$. $w = 2z^2 - xy$, find $\frac{\partial(u,v,w)}{\partial(x,y,z)}$ at (1, -1, 0) | **8** | **L3** | **CO1** |
| | **c.** | Using modern mathematical tool, write program/code to evaluate $\lim_{x\to\infty}\left(1+\frac{1}{x}\right)^x$ | **5** | **L3** | **CO5** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Solve $\frac{dy}{dx} + xy = xy^2$ | **6** | **L2** | **CO2** |
| | **b.** | Find the orthogonal trajectories of the family of the curves $r^n \sin n\theta = a^n$, where a is the parameter | **7** | **L3** | **CO2** |
| | **c.** | Solve $xyp^2 - (x^2 + y^2)p + xy = 0$. | **7** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.6** | **a.** | Solve $y = (2xy + 1)\,dx - x\,dy = 0$ | **6** | **L2** | **CO2** |
| | **b.** | A body in air at 25ºC cool from 100ºC to 75ºC in one minutes. Find the temperature of the body at the end of 3 minutes. | **7** | **L2** | **CO2** |
| | **c.** | Find the general solution of the equation $(px - y)(py + x) = 2p$ by reducing in to Clairaut's form taking the substitution $x = x^2$, $y = y^2$. | **7** | **L2** | **CO2** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Solve $(D^4 - 5D^3 + 6D^2 + 4D - 8)\,y = 0$. | **6** | **L2** | **CO3** |
| | **b.** | Solve $(D + 1)^2\, y = e^{2x} + \sin 2x + x^2$. | **7** | **L2** | **CO3** |
| | **c.** | Solve $(1 + x)^2 \frac{d^2y}{dx^2} + (1+x)\frac{dy}{dx} + y = 2\sin[\log(1 + x)]$ | **7** | **L3** | **CO3** |

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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.8** | **a.** | Solve $(D^2 + 5D + 4)\,y = 3 - 2x$. | **6** | **L2** | **CO3** |
| | **b.** | Solve by method of variation of parameters $\dfrac{d^2y}{dx^2} + y = \dfrac{1}{1+\sin x}$ | **7** | **L3** | **CO3** |
| | **c.** | Solve $x^2\dfrac{d^2y}{dx^2} - x\dfrac{dy}{dx} + y = \log x$. | **7** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Find the rank of the matrix $\begin{bmatrix} 4 & 0 & 2 & 1 \\ 2 & 1 & 3 & 4 \\ 2 & 3 & 4 & 7 \\ 2 & 3 & 1 & 4 \end{bmatrix}$ | **6** | **L2** | **CO4** |
| | **b.** | Solve the system of equations by Gauss – Jordan method $x + y + z = 9$, $x - 2y + 3z = 8$, $2x + y - z = 3$. | **7** | **L2** | **CO4** |
| | **c.** | Using power method, find the largest eigen value and the corresponding eigen vectors of $\begin{bmatrix} 1 & -3 & 2 \\ 1 & 4 & -1 \\ 6 & 3 & 5 \end{bmatrix}$ by taking $(1, 0, 0)^T$ as initial eigen vector. | **7** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | Solve the system of equations $2x - 3y + 20z = 25$, $20x + y + z = 17$, $3x + 20y - z = -18$, using Gauss – seidel method, taking (0, 0, 0) as an initial approximation carryout 4 iterations. | **7** | **L2** | **CO4** |
| | **b.** | For what values of $\lambda$ and $\mu$ the system of equations $2x + 3y + 5z = 9$, $7x + 3y - 2z = 8$, $2x + 3y + \lambda z = \mu$ has i) no solution ii) a unique solution iii) infinite number of solutions. | **8** | **L2** | **CO4** |
| | **c.** | Using Modern mathematical tool write a program/code to find the largest eigne value of $A = \begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$ | **5** | **L3** | **CO5** |

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# CBCS SCHEME

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**BMATC201**

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Mathematics – II for Civil Engineering Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. VTU Formula Hand Book is permitted.***
***3. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Evaluate $\int_{-1}^{1}\int_{0}^{z}\int_{x-z}^{x+z}(x+y+z)\,dy\,dx\,dz$ | **7** | **L3** | **CO1** |
| | **b.** | Evaluate $\int_{0}^{1}\int_{x}^{\sqrt{x}} xy\,dy\,dx$ by changing the order of integration. | **7** | **L3** | **CO1** |
| | **c.** | Show that $\beta(m,n)=\dfrac{\Gamma(m)\cdot\Gamma(n)}{\Gamma(m+n)}$ | **6** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Evaluate $\int_{0}^{a}\int_{0}^{\sqrt{a^2-x^2}}(x^2+y^2)\,dy\,dx$ by changing into polar coordinates. | **7** | **L3** | **CO1** |
| | **b.** | Using double integration find the area bounded between the parabolae $y^2 = 4x$ and $x^2 = 4y$. | **7** | **L3** | **CO1** |
| | **c.** | Write a modern mathematical program to evaluate the double integral $\int_{0}^{1}\int_{0}^{x}(x^2+y^2)\,dy\,dx$ | **6** | **L3** | **CO5** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Find the angle between the surfaces $x^2 + y^2 + z^2 = 9$ and $z = x^2 + y^2 - 3$ at the point (2, -1, 2). | **7** | **L2** | **CO2** |
| | **b.** | If $\vec{F}=\nabla(xy^3z^2)$, find div $\vec{F}$ and curl $\vec{F}$ at the point (1, -1, 1). | **7** | **L2** | **CO2** |
| | **c.** | Show that the vector field $\vec{F}=\dfrac{x\hat{i}+y\hat{j}}{x^2+y^2}$ is both solenoidal and irrotational. | **6** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Find the work done in moving a particle in the force field $\vec{F}=3x^2\hat{i}+(2xz-y)\hat{j}+z\hat{k}$ along the straight line from (0, 0, 0) to (2, 1, 3). | **7** | **L2** | **CO2** |



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| | **b.** | Use Stoke's Theorem to evaluate $\int_C \vec{F}\cdot d\vec{r}$ where $\vec{F} = (x^2 + y^2)\hat{i} - 2xy\hat{j}$ and C is bounded by the lines x = ± a, y = 0, y = b. | 7 | L3 | CO2 |
| | **c.** | Write a modern mathematical program to evaluate $\int_C \left[(xy + y^2)dx + x^2 dy\right]$, where C is the closed curve made up of the line y = x and the parabola $y = x^2$ by using Green's Theorem. | 6 | L3 | CO5 |

**Module – 3**

| | | | | | |
|---|---|---|---|---|---|
| **Q.5** | **a.** | Form the partial differential equation by eliminating the arbitrary function from the relation $z = y^2 + 2f\left(\frac{1}{x} + \log y\right)$. | 7 | L2 | CO3 |
| | **b.** | Solve $\frac{\partial^2 z}{\partial x^2} = xy$ subject to the conditions $\frac{\partial z}{\partial x} = \log_e(1+y)$ when x = 1 and z = 0 when x = 0. | 7 | L3 | CO3 |
| | **c.** | With usual notations, derive the one-dimensional wave equation $\frac{\partial^2 u}{\partial t^2} = c^2 \frac{\partial^2 u}{\partial x^2}$ | 6 | L2 | CO3 |

**OR**

| | | | | | |
|---|---|---|---|---|---|
| **Q.6** | **a.** | Form the partial differential equation by eliminating the arbitrary constants from the relation $(x - a)^2 + (y - b)^2 + z^2 = 4$. | 7 | L2 | CO3 |
| | **b.** | Solve $\frac{\partial^2 z}{\partial x^2} = z$ given that z = 0 and $\frac{\partial z}{\partial x} = \sin y$ when x = 0. | 7 | L3 | CO3 |
| | **c.** | Solve $x^2(y^2 - z^2)\,p + y^2(z^2 - x^2)\,q = z^2(x^2 - y^2)$. | 6 | L3 | CO3 |

**Module – 4**

| | | | | | |
|---|---|---|---|---|---|
| **Q.7** | **a.** | Find the real root of the equation $x\log_{10} x = 1.2$ that lies between 2 and 3 by Regula-Falsi method. Carry out FOUR iterations. | 7 | L3 | CO4 |
| | **b.** | The area A of a circle corresponding to the diameter D is given below: (see table below) Find the area when the diameter is 105 by using Newton's backward interpolation. | 7 | L3 | CO4 |
| | **c.** | Evaluate $\int_4^{5.2} \log_e x\, dx$ using Simpson's $\left(\frac{3}{8}\right)^{th}$ rule by taking 7 ordinates. | 6 | L3 | CO4 |

Table for Q.7 b:

| | | | | | |
|---|---|---|---|---|---|
| D : | 80 | 85 | 90 | 95 | 100 |
| A : | 5026 | 5674 | 6362 | 7088 | 7854 |



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| | | **OR** | | | |
| **Q.8** | **a.** | Find the real root of the equation tan x = x near x = 4.5 by Newton-Raphson method. Correct to FOUR decimal places. | **7** | **L3** | **CO4** |
| | **b.** | Fit a Lagrange's interpolation polynomial which passes through the points (-1, 0), (1, 2), (2, 9) and (3, 8) and hence estimate the value of y when x = 2.2 | **7** | **L3** | **CO4** |
| | **c.** | Evaluate $\int_0^{\pi/2} \sqrt{\cos x}\, dx$ using Trapezoidal rule by taking 7 ordinates. | **6** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Using Taylor's series method, find y(0.1) given that $\frac{dy}{dx} = x - y^2$ with y(0) = 1. | **7** | **L3** | **CO4** |
| | **b.** | Using Runge-Kutta method of fourth order, find y(0.1) given that $\frac{dy}{dx} = 3e^x + 2y$, y(0) = 1 | **7** | **L3** | **CO4** |
| | **c.** | Applying Milne's Predictor-Corrector Method, find y(0.8) from $\frac{dy}{dx} = x^3 + y$ with y(0) = 2, y(0.2) = 2.073, y(0.4) = 2.452, y(0.6) = 3.023. | **6** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | Using Modified Euler's method, find y(0.2) given that $\frac{dy}{dx} = 3x + \frac{y}{2}$, y(0) = 1, taking h = 0.1. Perform two iterations at each step. | **7** | **L3** | **CO4** |
| | **b.** | Using Runge-Kutta method of order 4, find y(0.1) given $\frac{dy}{dx} = x^2 + y,\ y(0) = -1$ | **7** | **L3** | **CO4** |
| | **c.** | Write a modern mathematical program to find y(0.1) given $\frac{dy}{dx} = x - y,\ y(0) = 1$ by Taylor's series method. | **6** | **L3** | **CO5** |

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# CBCS SCHEME

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**BMATE101**

**First Semester B.E/B.Tech. Degree Examination, June/July 2026**

## Mathematics – I for EEE Stream

Time: 3 hrs. Max. Marks:100

**Note:** *1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| 1 | a. | With usual notations prove that $\tan\phi = r\dfrac{d\theta}{dr}$. | 6 | L2 | CO1 |
| | b. | Find the angle between the curves $r = a(1+\cos\theta)$ and $r = b(1-\cos\theta)$. | 7 | L2 | CO1 |
| | c. | Find the radius of curvature for the cardiods $r = a(1+\cos\theta)$ | 7 | L3 | CO1 |
| | | **OR** | | | |
| 2 | a. | If p be the perpendicular from the pole on the tangent, then show that : $\dfrac{1}{p^2} = \dfrac{1}{r^2} + \dfrac{1}{r^4}\left(\dfrac{dr}{d\theta}\right)^2$. | 6 | L2 | CO1 |
| | b. | Find the radius of curvature of the curve $x^3 + y^3 = 3axy$ at $\left(\dfrac{3a}{2}, \dfrac{3a}{2}\right)$. | 7 | L2 | CO1 |
| | c. | Using modern mathematical tool, write a program to plot the curve $r = 2\lvert\cos 2\theta\rvert$. | 7 | L3 | CO5 |
| | | **Module – 2** | | | |
| 3 | a. | Expand $\sqrt{1+\sin 2x}$ using Maclaurin's series expansion upto term containing $x^4$. | 6 | L2 | CO1 |
| | b. | If $u = f(2x-3y, 3y-4z, 4z-2x)$ show that $6\,\partial u/\partial x + 4\,\partial u/\partial y + 3\,\partial u/\partial z = 0$. | 7 | L2 | CO1 |
| | c. | Show that the function $f(x,y) = x^3 + y^3 - 3xy + 1$ is minimum at the point (1, 1). | 7 | L3 | CO2 |



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|---|---|---|---|---|---|
| | | **OR** | | | |
| **4** | a. | Evaluate : $\lim_{x\to 0}\left(\frac{a^x+b^x+c^x+d^x}{4}\right)^{1/x}$. | **6** | **L2** | **CO2** |
| | b. | If $u=\frac{xy}{z}, v=\frac{yz}{x}$ and $w=\frac{xz}{y}$ then show that $J\left(\frac{u,v,w}{x,y,z}\right)=4$. | **7** | **L2** | **CO2** |
| | c. | Using modern mathematical tool write a program to evaluate : $\lim_{x\to\infty}\left(1+\frac{1}{x}\right)^x$ | **7** | **L3** | **CO5** |
| | | **Module – 3** | | | |
| **5** | a. | Solve $\frac{dy}{dx}+y\tan x=y^3\sec x$. | **6** | **L2** | **CO2** |
| | b. | Find the orthogonal trajectories of a family of curves $\frac{2a}{r}=1-\cos\theta$. | **7** | **L3** | **CO2** |
| | c. | Solve : $xyp^2-(x^2+y^2)p+xy=0$. | **7** | **L2** | **CO2** |
| | | **OR** | | | |
| **6** | a. | Solve $(x^2+y^2+x)dx+xy\,dy=0$. | **6** | **L2** | **CO2** |
| | b. | When a resistance R ohms connected in series with an inductance Harries with an emf of E volts, the current i amperes at time t is given by $L\frac{di}{dt}+Ri=E$. If E = 10 sin t volts and i = 0 when t = 0. Find i as a function of t. | **7** | **L3** | **CO2** |
| | c. | Find the general solution of the equation (px – y) (py + x) = $a^2p$ by reducing into Clairaut's form, taking the substitution $X=x^2$, $Y=y^2$. | **7** | **L2** | **CO2** |



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## Module – 4

| | | | Marks | Level | CO |
|---|---|---|---|---|---|
| 7 | a. | Evaluate : $\int_{-c}^{c}\int_{-b}^{b}\int_{-a}^{a}(x^2+y^2+z^2)dzdydx$. | 6 | L2 | CO3 |
| | b. | Evaluate : $\int_0^{\infty}\int_0^{\infty}\bar{e}^{(x^2+y^2)}dxdy$ by changing to polar coordinates. | 7 | L3 | CO3 |
| | c. | Derive the relation between beta and gamma function. | 7 | L2 | CO3 |
| OR | | | | | |
| 8 | a. | Evaluate by changing the order integration and evaluate : $\int_0^{a}\int_{x^2/4a}^{2\sqrt{ax}} xy\, dy\, dx$. | 6 | L2 | CO3 |
| | b. | Evaluate $\int_0^{\pi/2}\sqrt{\cot\theta}$ by expressing interms of beta gamma function. | 7 | L2 | CO3 |
| | c. | Using double integration find the area between the parabola $y^2 = 4ax$ and $x^2 = 4ay$. | 7 | L3 | CO3 |

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**Module – 5**

| | | | | | |
|---|---|---|---|---|---|
| **9** | a. | Find the rank of the matrix : $\begin{bmatrix} 2 & 1 & -1 & -3 \\ 1 & 2 & 3 & -1 \\ 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & -1 \end{bmatrix}$. | **6** | **L2** | **CO4** |
| | b. | Solve by using Gauss Elimination Method :<br>$x + y + z = 9$<br>$x - 2y + 3z = 8$<br>$2x + y - z = 3$. | **7** | **L3** | **CO4** |
| | c. | Using Rayleigh's Power Method find the dominant eigen value and the corresponding Eigen vector of : $\begin{bmatrix} 4 & 1 & -1 \\ 2 & 3 & -1 \\ -2 & 1 & 5 \end{bmatrix}$ by taking $[1\ 0\ 0]^T$ as initial Eigen vector [5 iteration]. | **7** | **L3** | **CO4** |
| | | **OR** | | | |
| **10** | a. | Test for consistency and solve :<br>$5x + 3y + 7z = 4$<br>$3x + 26y + 2z = 9$<br>$7x + 2y + 10z = 5$. | **6** | **L2** | **CO4** |
| | b. | Solve by using Gauss-Seidel Method :<br>$20x + y - 2z = 17$<br>$3x + 20y - z = -18$ and<br>$2x - 3y + 20z = 25$. | **7** | **L3** | **CO4** |
| | c. | Using modern mathematical tool, write a program/code to find the largest Eigen value of $A = \begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$ By Power Method. | **7** | **L3** | **CO5** |

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**BMATE201**

# Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Mathematics – II for EEE Stream

Time: 3 hrs. Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. VTU Formula Hand Book is permitted.*
*3. M : Marks , L: Bloom's level , C: Course outcomes.*

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Find the angle between the surfaces $x^2+y^2+z^2=9$ and $z=x^2+y^2-3$ at (2, -1, 2). | 07 | L2 | CO1 |
| | b. | Evaluate $\text{curl}(\text{curl}\,\vec{F})$ and $\text{div}(\text{curl}\,\vec{F})$, if $\vec{F}=x^2y\,\hat{i}+y^2z\,\hat{j}+z^2x\,\hat{k}$ | 07 | L3 | CO1 |
| | c. | Show that $\vec{F}=\dfrac{x\,\hat{i}+y\,\hat{j}}{x^2+y^2}$ is both Solenoidal and Irrotational. | 06 | L3 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Find the total work done by the force represented by $\vec{F}=3xy\,\hat{i}-y\,\hat{j}+2zx\,\hat{k}$ in moving a particle around the circle $x^2+y^2=4$. | 07 | L2 | CO1 |
| | b. | Using Green's theorem evaluate $\oint(xy+y^2)dx+x^2dy$ over the region bounded by the curves y = x and y = $x^2$ | 07 | L3 | CO1 |
| | c. | Using modern mathematical tools, write the code to find gradient of $\phi=x^2y+2xz-4$. | 06 | L3 | CO5 |
| | | **Module – 2** | | | |
| Q.3 | a. | Define Vector Space. Determine whether the vectors (1, 2, 3) (3, 1, 7) and (2, 5, 8) are linearly independent or not. | 07 | L2 | CO2 |
| | b. | Find the rank and nullity of the linear transformation, $T:V\to W$ defined by T(x, y, z) = (x + 2y – z , y + z, x + y – 2z) | 07 | L3 | CO2 |
| | c. | Define an Inner Product Space. Consider $f(t)=1$, $g(t)=2t-1$ and h(t)=12t$^2$,the inner product $<f,g>=\int_0^1 f(t).g(t).dt$, $<g,h>=\int_0^1 g(t).h(t).dt$ Find (i) <f, g> (ii) <g, h> | 06 | L3 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Determine whether or not the following vectors forms a basis in $R^3$: (2, 2, 1) (1, 3, 7) and (1, 2, 2) | 07 | L2 | CO2 |
| | b. | Find the matrix of the linear transformation T : $R^2\to R^3$ defined by T(x, y) = (3x – y, 2x + 4y, 5x – 6y) with respect to the standard bases $R^2$ and $R^3$. | 07 | L3 | CO2 |



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|---|---|---|---|---|---|
| Q.4 | c. | Using the modern mathematical tool, write the code to represent the reflection transformation $T : R^2 \to R^2$ and to find the image of vector (10, 0) when it is reflected about the y-axis | 06 | L3 | CO5 |

**Module – 3**

| | | | | | |
|---|---|---|---|---|---|
| Q.5 | a. | Find the Laplace Transform of,<br>(i) $e^{-2t}(2\cos 5t - \sin 5t)$<br>(ii) $\dfrac{\cos at - \cos bt}{t}$ | 07 | L2 | CO3 |
| | b. | Find the Laplace transform of the triangular wave function,<br>$f(t) = \begin{cases} t & \text{if } 0 \le t \le a \\ 2a - t & \text{if } a \le t \le 2a \end{cases}$<br>and hence show that $L[f(t)] = \dfrac{1}{s^2}\tanh\left(\dfrac{as}{2}\right)$ | 07 | L3 | CO3 |
| | c. | Express the following function in terms of unit step function and hence find the Laplace transform of $f(t) = \begin{cases} \sin t & 0 \le t < \pi \\ \sin 2t & \pi \le t \le 2\pi \\ \sin 3t & t > 2\pi \end{cases}$ | 06 | L3 | CO3 |

**OR**

| | | | | | |
|---|---|---|---|---|---|
| Q.6 | a. | Find the inverse Laplace transform of<br>$\dfrac{2s^2 + 5s - 4}{s^3 + s^2 - 2s}$ | 07 | L2 | CO3 |
| | b. | Using convolution theorem, find the inverse Laplace transform of<br>$\dfrac{s}{(s^2 + a^2)^2}$. | 07 | L3 | CO3 |
| | c. | Solve by differential equation $y'' + 4y' + 3y = e^{-t}$ with $y(0) = 1 = y'(0)$ using Laplace transforms. | 06 | L3 | CO3 |

**Module – 4**

| | | | | | |
|---|---|---|---|---|---|
| Q.7 | a. | Find the real root of the equation $xe^x - 2 = 0$ correct to three decimal places using Newton-Raphson method. | 07 | L2 | CO4 |
| | b. | Using Newton's forward difference formula, find y(38), given that<br>x: 40, 50, 60, 70, 80, 90<br>y: 184, 204, 226, 250, 276, 304 | 07 | L2 | CO4 |
| | c. | Evaluate using Simpson's $\dfrac{1}{3}^{rd}$ rule to find $\int_0^{0.6} e^{-x^2}\,dx$ by taking seven ordinates. | 06 | L3 | CO4 |



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OR

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|---|---|---|---|---|---|
| **Q.8** | **a.** | Find the real root of $x\log_{10} x - 1.2 = 0$, by using Regula-Falsi method (Carry out three iterations) where root lies between (2, 3). | **07** | **L2** | **CO4** |
| | **b.** | Use Lagrange's interpolation formula to find f(4), given<br>x: 0, 2, 3, 6<br>f(x): -4, 2, 14, 158 | **07** | **L2** | **CO4** |
| | **c.** | Using Simpson's $\frac{3}{8}^{th}$ rule evaluate $\int_0^3 \frac{x\,dx}{\cos x}$ correct to four decimal place by taking seven ordinates. | **06** | **L3** | **CO4** |

**Module – 5**

| | | | | | |
|---|---|---|---|---|---|
| **Q.9** | **a.** | Use Taylor's series method to find y(0.2) by considering the terms upto $4^{th}$ degree, given $\frac{dy}{dx} = 3e^x + 2y$ and $y(0) = 0$. | **07** | **L2** | **CO4** |
| | **b.** | Given $\frac{dy}{dx} = 3x + \frac{y}{2}$, y(0) = 1. Compute y(0.2) by taking h = 0.2, using Runge-Kutta method of fourth order. | **07** | **L3** | **CO4** |
| | **c.** | Apply Milne's method to find y(0.8) given that $\frac{dy}{dx} = x - y^2$ and<br>x: 0, 0.2, 0.4, 0.6<br>y: 0, 0.02, 0.0795, 0.1762 | **06** | **L3** | **CO4** |

**OR**

| | | | | | |
|---|---|---|---|---|---|
| **Q.10** | **a.** | Using modified Euler's method find y(0.2) given that $\frac{dy}{dx} = x + y$, y(0) = 1. | **07** | **L2** | **CO4** |
| | **b.** | Apply Milne's method to find y(0.4) given that $\frac{dy}{dx} = x^2 + y^2$ and<br>x: 0, 0.1, 0.2, 0.3<br>y: 1, 1.1113, 1.2507, 1.426 | **07** | **L3** | **CO4** |
| | **c.** | Using modern mathematical tools, write the code to find the solution of $\frac{dy}{dx} = 1 + \frac{y}{x}$ at y(2) taking h = 0.2. Given that y(1) = 2 by Runge-Kutta $4^{th}$ order method. | **06** | **L3** | **CO5** |

Q.8 b. table:

| x | 0 | 2 | 3 | 6 |
|---|---|---|---|---|
| f(x) | -4 | 2 | 14 | 158 |

Q.9 c. table:

| x | 0 | 0.2 | 0.4 | 0.6 |
|---|---|---|---|---|
| y | 0 | 0.02 | 0.0795 | 0.1762 |

Q.10 b. table:

| x | 0 | 0.1 | 0.2 | 0.3 |
|---|---|---|---|---|
| y | 1 | 1.1113 | 1.2507 | 1.426 |

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CBCS SCHEME

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BMATM101

# First Semester B.E./B.Tech. Degree Examination, June/July 2026

## Mathematics – I for ME Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. VTU Formula Hand Book is permitted.***
***3. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | With usual notation prove that $\tan\phi = r\dfrac{d\theta}{dr}$ | 6 | L2 | CO1 |
| | b. | Find the angle of intersection of the curves $r = \dfrac{a}{1+\cos\theta}$ and $r = \dfrac{b}{1-\cos\theta}$ | 7 | L2 | CO1 |
| | c. | Find the pedal equation of $\dfrac{2a}{r} = 1-\cos\theta$ | 7 | L3 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Derive the radius of curvature for the Cartesian form. | 6 | L2 | CO1 |
| | b. | Find the angle of '$\phi$' for the polar curve $r = a(1 + \sin\theta)$. Hence determine the slope of the curve at $\theta = \pi/2$ | 7 | L2 | CO1 |
| | c. | Using modern mathematical tool write a programme/code to plot sine and cosine curve. | 7 | L3 | CO5 |
| | | **Module – 2** | | | |
| Q.3 | a. | Expand $\log(1 + e^x)$ by using Maclaurin's series upto the term containing $x^4$. | 6 | L2 | CO2 |
| | b. | If $u = f(2x - 3y, 3y - 4z, 4z - 2x)$ show that $\dfrac{1}{2}\dfrac{\partial u}{\partial x} + \dfrac{1}{3}\dfrac{\partial u}{\partial y} + \dfrac{1}{4}\dfrac{\partial u}{\partial z} = 0$ | 7 | L2 | CO2 |
| | c. | Examine the function $f(x, y) = 2(x^2 - y^2) - x^4 + y^4$ for extreme values. | 7 | L3 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Evaluate $\lim\limits_{x \to 0}\left(\dfrac{a^x + b^x + c^x + d^x}{4}\right)^{1/x}$ | 6 | L2 | CO2 |
| | b. | If $x = r\sin\theta\cos\phi$ , $y = r\sin\theta\sin\phi$ , $z = r\cos\theta$, show that $\dfrac{\partial(x,y,z)}{\partial(r,\theta,\phi)} = r^2\sin\theta$ | 7 | L2 | CO2 |



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|---|---|---|---|---|---|
| | **c.** | Using modern mathematical tool write a programme to show that $u_{xx} + u_{yy} = 0$ where $u = e^x [x \cos y - y \sin y]$ | 7 | L3 | CO5 |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Solve $\frac{dy}{dx} + y \tan x = y^2 \sec x$ | 6 | L2 | CO3 |
| | **b.** | Find the orthogonal trajectories of the family of curves $\frac{x^2}{a^2} + \frac{y^2}{b^2 + \lambda} = 1$ where $\lambda$ is a parameter. | 7 | L3 | CO3 |
| | **c.** | Solve $yp^2 + (x-y) p - x = 0$ | 7 | L2 | CO3 |
| | | **OR** | | | |
| **Q.6** | **a.** | Solve $(8xy - 9y^2) dx + 2 (x^2 - 3xy) dy = 0$ | 6 | L2 | CO3 |
| | **b.** | If the temperature of the air is 30°C and the substance cool from 100°C in 15 minutes. Find when the temperature reaches at 40°C. | 7 | L2 | CO3 |
| | **c.** | Find the general and singular solution of $(p-1) e^{3x} + p^3 e^{2y} = 0$ by using the substitution $u = e^x$ and $v = e^y$. | 7 | L3 | CO3 |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Solve $(\Delta^4 + 5D^3 + 6D^2 - 4D - 8) y = 0$ | 6 | L2 | CO3 |
| | **b.** | Solve $\frac{d^3y}{dx^3} + 2\frac{d^2y}{dx^2} + \frac{dy}{dx} = e^{-x} + \sin 2x$ | 7 | L2 | CO3 |
| | **c.** | Solve $\frac{d^2y}{dx^2} - 6\frac{dy}{dx} + 9y = \frac{e^{3x}}{x^2}$ by the method of variation of parameters. | 7 | L3 | CO3 |
| | | **OR** | | | |
| **Q.8** | **a.** | Solve $[D^4 + 2D^3 + 3D^2 + 2D + 1] Y = 0$ | 6 | L2 | CO3 |
| | **b.** | Solve $\frac{d^2y}{dx^2} - 4\frac{dy}{dx} + 4y = 8(e^{2x} + \sin 2x + x^2)$ | 7 | L2 | CO3 |
| | **c.** | Solve $x^3 \frac{d^3y}{dx^3} + 2x^2 \frac{d^2y}{dx^2} + 2y = 10(x + 1/x)$ | 7 | L3 | CO3 |

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| | | Module – 5 | | | |
|---|---|---|---|---|---|
| **Q.9** | **a.** | Find the rank of the matrix $A = \begin{bmatrix} 2 & 3 & -1 & -1 \\ 1 & -1 & -2 & -4 \\ 3 & 1 & 3 & -2 \\ 6 & 3 & 0 & -7 \end{bmatrix}$ | **6** | **L2** | **CO4** |
| | **b.** | Solve the system of equations by Gauss-Jordan method $2x + 3y - z = 5$, $4x + 4y - 3z = 3$, $2x - 3y + 2z = 2$ | **7** | **L3** | **CO4** |
| | **c.** | For what values of $\lambda$ and $\mu$ the system of equations $2x + 3y + 5z = 9$, $7x + 3y - 2z = 8$, $2x + 3y + \lambda z = \mu$ may have i) unique solution ii) infinite solution iii) no solution. | **7** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | Solve the system of equations using Gauss seidal method by taking (0, 0, 0) as an initial conditions $10x + y + z = 12$, $2x + 10y + z = 13$, $2x + 2y + 10z = 14$ | **6** | **L2** | **CO4** |
| | **b.** | Using Rayleigh's power method find the dominant eigen value and the corresponding eigen vector of $\begin{bmatrix} 6 & -2 & 2 \\ -2 & 3 & -1 \\ 2 & -1 & 3 \end{bmatrix}$ by taking $[1\ 1\ 1]^T$ as the initial eigen vector (carry out 5 iterations). | **7** | **L2** | **CO4** |
| | **c.** | Using modern mathematical tool write a programme / code to test the consistency of the equations $x + 2y - z = 1$, $2x + y + 4z = 2$, $3x + 3y + 4z = 1$. | **7** | **L3** | **CO5** |

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BMATM201

# Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Mathematics-II for ME Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Hand Book is permitted.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Evaluate $\int_0^a \int_0^x \int_0^{x+y} e^{x+y+z}\,dz\,dy\,dx$ | 7 | L3 | CO1 |
| | b. | By changing the order of integration evaluate $\int_0^a \int_y^a \frac{x}{x^2+y^2}\,dx\,dy$ | 7 | L3 | CO1 |
| | c. | Prove that $\beta(m,n) = \frac{\Gamma m\, \Gamma n}{\Gamma m+n}$ | 6 | L2 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Evaluate the integral $\int_{-a}^{a} \int_0^{\sqrt{a^2-x^2}} \sqrt{x^2+y^2}\,dy\,dx$ by changing into polar coordinates. | 7 | L3 | CO1 |
| | b. | Find by double integration the area between the parabolas $y^2 = 4ax$ and $x^2 = 4ay$. | 7 | L3 | CO1 |
| | c. | Using modern mathematical tools write a program to evaluate $\int_0^3 \int_0^{3-x} \int_0^{3-x-y} (xyz)\,dz\,dy\,dx$ | 6 | L3 | CO5 |
| | | **Module – 2** | | | |
| Q.3 | a. | If $\vec{F} = \nabla(xy^3z^2)$ find $\text{div}\,\vec{F}$ and $\text{curl}\,\vec{F}$ at (1, -1, 1). | 7 | L2 | CO2 |
| | b. | Find the directional derivative of $\phi = 4xz^3 - 3x^2y^2z$ at (2, -1, 2) along $2i - 3j + 6k$. | 7 | L2 | CO2 |
| | c. | Find constants a and b such that $\vec{F} = (axy + z^3)i + (3x^2 - z)j + (bxz^2 - y)k$ is irrotational. | 6 | L2 | CO2 |
| | | **OR** | | | |

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|---|---|---|---|---|---|
| Q.4 | a. | Find the angle between the normals to the surface $xy = z^2$ at (4, 1, 2) and (3, 3,-3) | 7 | L2 | CO2 |
| | b. | If $\vec{A} = xz^3 i - 2x^2 yzj + 2yz^4 k$, find $\nabla \cdot \vec{F}$, $\nabla \times \vec{F}$ and $\nabla \cdot (\nabla \times \vec{A})$ at the point (1, - 1, 1) | 7 | L2 | CO2 |
| | c. | Write the modern mathematical tool program to find the divergence of the vector field $\vec{F} = x^2 yzi + y^2 zxj + z^2 xyk$ | 6 | L2 | CO5 |
| **Module – 3** | | | | | |
| Q.5 | a. | Form the partial differential equation by eliminating the arbitrary function f from $z = e^{ax+by} f(ax - by)$. | 7 | L2 | CO3 |
| | b. | Solve $\frac{\partial^2 z}{\partial x^2} + 4z = 0$, given that when x = 0, $z = e^{2y}$ and $\frac{\partial z}{\partial x} = 2$. | 7 | L3 | CO3 |
| | c. | Derive one-dimensional heat equation in the standard form as $\frac{\partial u}{\partial t} = c^2 \frac{\partial^2 u}{\partial x^2}$. | 6 | L2 | CO3 |
| **OR** | | | | | |
| Q.6 | a. | Form a partial differential equation from $z = a \log(x^2 + y^2) + b$ by eliminating arbitrary constants. | 7 | L2 | CO3 |
| | b. | Solve $\frac{\partial^2 z}{\partial x \partial t} = e^{-2t} \cos 3x$ subject to the conditions<br>i) z = 0 when x = 0<br>ii) $\frac{\partial z}{\partial t} = 0$ when x = 0 | 7 | L3 | CO3 |
| | c. | Solve $(x^2 - yz)p + (y^2 - zx)q = z^2 - xy$. | 6 | L3 | CO3 |
| **Module – 4** | | | | | |
| Q.7 | a. | By using Regula – Falsi method, find an approximate root of the equation $x^4 - x - 10 = 0$ that lies between 1.8 and 2. Carryout 3 approximations. | 7 | L3 | CO4 |
| | b. | The areas y of circles for different diameters x are given below :<br>x: 80, 85, 90, 95, 100<br>y: 5026, 5674, 6362, 7088, 7854<br>Calculate the area when x = 98 by using Newton's backward interpolation formula. | 7 | L3 | CO4 |
| | c. | Evaluate $\int_0^{\pi/2} \sqrt{\cos\theta}\, d\theta$ by dividing the interval into eight equal parts, using Simpson's $1/3^{rd}$ rule. | 6 | L3 | CO4 |



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| | | OR | | | |
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| **Q.8** | **a.** | Using the Newton – Raphson method find the root that lies near x = 4.5 of the equation tan x = x, correct to four decimal places (x is measured in radians) | **7** | **L3** | **CO4** |
| | **b.** | Find the value of y when x = 10 by Lagrange's interpolation formula.<br>x: 5, 6, 9, 11<br>y: 12, 13, 14, 16 | **7** | **L3** | **CO4** |
| | **c.** | Evaluate $\int_0^1 \frac{x}{1+x^2}dx$ by using Simpson's $\frac{3}{8}^{th}$ rule, dividing the interval into 3 equal parts. Hence find an approximate value of $\log\sqrt{2}$. | **6** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Solve the differential equation $\frac{dy}{dx} = 2y + 3e^x$, given y(0) = 0. Find the value of y(0.1) by using Taylor's series method by taking terms upto $4^{th}$ order and h = 0.1. | **7** | **L3** | **CO4** |
| | **b.** | Apply Runge-Kutta method of $4^{th}$ order, to find an approximate value of y at x = 0.1, given that $\frac{dy}{dt} = 3x + y^2$, y(0) = 1 and h = 0.1 . | **7** | **L3** | **CO4** |
| | **c.** | Given $y' = 1 + y^2$ and y(0) = 0, y(0.2) = 0.203, y (0.4) = 0.423, y(0.6) = 0.684, find y(0.8), using Milne's predictor - corrector formula. | **6** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | Use Euler's modified method to find y(0.1) given $\frac{dy}{dx} = \frac{y-x}{y+x}$, y(0) = 1, taking h = 0.1 (Carry out 3 iterations). | **7** | **L3** | **CO4** |
| | **b.** | Use Runge-kutta method of $4^{th}$ order to find y(1.2) given that $\frac{dy}{dx} = x^2 + y^2$, with y(1) = 1.5 taking h = 0.1. | **7** | **L3** | **CO4** |
| | **c.** | Using modern mathematical tools write a program to find y when x = 1.4 given that $\frac{dy}{dx} = x^2 + y/2$, y(1) = 2, y(1.1) = 2.2156, y(1.2) = 2.4649, y (1.3) = 2.7514, using Milne's predictor - corrector method. | **6** | **L3** | **CO5** |

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# CBCS SCHEME

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**BMATS101**

## First Semester B.E./B.Tech. Degree Examination, June/July 2026
## Mathematics – I for CSE Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. VTU Formula Hand Book is permitted.***
***3. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | **Module – 1** | **M** | **L** | **C** |
|---|---|---|---|---|---|
| **Q.1** | **a.** | With usual notation prove that $\tan\phi = r\dfrac{d\theta}{dr}$. | **06** | **L2** | **CO1** |
| | **b.** | Find the angle between the curves $r = 6\cos\theta$ and $r = 2(1+\cos\theta)$. | **07** | **L2** | **CO1** |
| | **c.** | Show that the radius of curvature at any point of the cycloid $x = a(\theta + \sin\theta), y = a(1 - \cos\theta)$ is $4a\cos\left(\dfrac{\theta}{2}\right)$. | **07** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Show that the curves $r = a(1 + \cos\theta)$ and $r = b(1 - \cos\theta)$ cut each other orthogonally. | **07** | **L2** | **CO1** |
| | **b.** | Find the pedal equation of the curve $r^n = a^n \cos n\theta$. | **08** | **L2** | **CO1** |
| | **c.** | Using modern mathematical tool write a program / code to plot the curve $r = 2\mid\cos 2\theta\mid$. | **05** | **L3** | **CO5** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Expand $e^{\sin x}$ as Maclaurin's series upto the terms containing $x^4$. | **06** | **L2** | **CO1** |
| | **b.** | If $u = f\left(\dfrac{x}{y}, \dfrac{y}{z}, \dfrac{z}{x}\right)$, prove that $x\dfrac{\partial u}{\partial x} + y\dfrac{\partial u}{\partial y} + z\dfrac{\partial u}{\partial z} = 0$ | **07** | **L2** | **CO1** |
| | **c.** | Find the extreme values of the function $f(x, y) = x^3 + y^3 - 3x - 12y + 20$. | **07** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.4** | **a.** | Evaluate $\lim\limits_{x\to 0}\left[\dfrac{a^x + b^x + c^x + d^x}{4}\right]^{1/x}$ | **07** | **L2** | **CO1** |
| | **b.** | If $u = \dfrac{yz}{x}$, $v = \dfrac{zx}{y}$, $w = \dfrac{xy}{z}$, show that $\dfrac{\partial(u,v,w)}{\partial(x,y,z)} = 4$ | **08** | **L2** | **CO1** |
| | **c.** | Using modern mathematical tool write a program/code to show that $u_{xx} + u_{yy} = 0$ given $u = e^x(x\cos(y) - y\sin(y))$. | **05** | **L3** | **CO5** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Solve : $\dfrac{dy}{dx} + \dfrac{y}{x} = y^2 x$ | **06** | **L2** | **CO2** |
| | **b.** | Find the orthogonal trajectories of the family of parabolas $y^2 = 4ax$. | **07** | **L3** | **CO2** |
| | **c.** | Solve : $y\left(\dfrac{dy}{dx}\right)^2 + (x - y)\dfrac{dy}{dx} - x = 0$ | **07** | **L2** | **CO2** |



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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.6** | **a.** | Solve : $\frac{dy}{dx} + \frac{y\cos x + \sin y + y}{\sin x + x\cos y + x} = 0$ | **06** | **L2** | **CO2** |
| | **b.** | A series circuit with resistance R, inductance L and electromotive force E is governed by the differential equation $L\frac{di}{dt} + Ri = E$, where L and R are constants and initially the current i is zero. Find the current at any time t. | **07** | **L3** | **CO2** |
| | **c.** | Solve the equation $(px - y)(py + x) = 2p$ by reducing into Clairaut's form by taking substitution $X = x^2$ and $Y = y^2$. | **07** | **L2** | **CO2** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Find the least positive values of x such that<br>i) $71 \equiv x \pmod 8$<br>ii) $78 + x \equiv 3 \pmod 5$<br>iii) $89 \equiv (x + 3) \pmod 4$ | **06** | **L2** | **CO3** |
| | **b.** | Find the remainder when 175 x 113 × 53 is divided by 11. | **07** | **L2** | **CO3** |
| | **c.** | Solve : $7x + 3y \equiv 10 \pmod{16}$ and<br>$2x + 5y \equiv 9 \pmod{16}$ | **07** | **L3** | **CO3** |
| | | **OR** | | | |
| **Q.8** | **a.** | Solve : $x \equiv 1 \pmod 4$ , $x \equiv 0 \pmod 3$ , $x \equiv 5 \pmod 7$ by using remainder theorem. | **06** | **L2** | **CO3** |
| | **b.** | Find the general solutions of LDE $5x + 11y = 92$. | **07** | **L3** | **CO3** |
| | **c.** | Encrypt the message "Stop" using RSA with key (2537, 13) using prime numbers 43 and 59. | **07** | **L2** | **CO3** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Find the rank of the matrix<br>$\begin{bmatrix} 2 & -1 & -3 & -1 \\ 1 & 2 & 3 & -1 \\ 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & -1 \end{bmatrix}$ | **06** | **L2** | **CO4** |
| | **b.** | Solve the system of equations by Gauss-Jordan Method.<br>$x + y + z = 9$ ; $x - 2y + 3z = 8$ ; $2x + y - z = 3$ | **07** | **L3** | **CO4** |
| | **c.** | Investigate the values of $\lambda$ and $\mu$ such that the system of equations<br>$x + y + z = 6$ ; $x + 2y + 3z = 10$ ; $x + 2y + \lambda z = \mu$ may have<br>(i) Unique solution (ii) Infinite solution (iii) No solution. | **07** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | Solve the following system of equations by Gauss-Seidel Method.<br>$10x + y + z = 12$ ; $x + 10y + z = 12$ ; $x + y + 10z = 12$ | **08** | **L2** | **CO4** |
| | **b.** | Solve the following system of equations by Gauss-Elimination Method.<br>$2x + y + 4z = 12$ ; $4x + 11y - z = 33$ ; $8x - 3y + 2z = 20$ | **07** | **L2** | **CO4** |
| | **c.** | Using modern mathematical tool, write a program/code to find the largest eigen value of, $A = \begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$ by power method. | **05** | **L3** | **CO5** |

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**CBCS SCHEME**

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**BMATS201**

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Mathematics – II for CSE Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Hand Book is permitted.***

| | | **Module – 1** | **M** | **L** | **C** |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Evaluate $\int_{-c}^{c}\int_{-b}^{b}\int_{-a}^{a}(x^2+y^2+z^2)\,dx\,dy\,dz$ | **7** | **L2** | **CO1** |
| | **b.** | Evaluate $\int_0^{\infty}\int_0^{\infty} e^{-(x^2+y^2)}\,dx\,dy$ by changing into polar coordinates. | **7** | **L3** | **CO1** |
| | **c.** | Show that $\beta(m,n)=\dfrac{\Gamma(m)\cdot\Gamma(n)}{\Gamma(m+n)}$. | **6** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Evaluate $\int_0^{a}\int_y^{a}\dfrac{x}{x^2+y^2}\,dx\,dy$ by changing the order of integration. | **7** | **L3** | **CO1** |
| | **b.** | Evaluate $\iint_R xy\ dx\ dy$ where R is the region bounded by the x – axis, ordinate x = 2a and the curve $x^2 = 4a\,y$. | **7** | **L3** | **CO1** |
| | **c.** | Using Mathematical tools, write the code to find the area of an ellipse by double integration $A = 4\int_0^{a}\int_0^{\frac{b}{a}\sqrt{a^2-x^2}} dxdy$ | **6** | **L3** | **CO5** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Find the directional derivative of $\phi = x^2yz + 4xz^2$ at (1, -2, -1) in the direction of the vector 2i – j – 2k. | **7** | **L2** | **CO2** |
| | **b.** | If $\vec{F}=\nabla(x^3+y^3+z^3-3xyz)$ find $\text{div}\vec{F}$ and curl $\vec{F}$. | **7** | **L2** | **CO2** |
| | **c.** | Express the vector $\vec{A}=z\vec{i}-2x\vec{j}+y\vec{k}$ in cylindrical coordinates. | **6** | **L2** | **CO2** |
| | | **OR** | | | |

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|---|---|---|---|---|---|
| **Q.4** | **a.** | Find the directional derivative of $\phi = 4xz^3 - 3x^2y^2z$ at (2, +1, +2) in the direction of the vector $2i - 3j + 6k$. | **7** | **L3** | **CO2** |
| | **b.** | Show that the vector $\vec{F} = \frac{xi + yj}{x^2 + y^2}$ is both solenoidal and irrotational. | **7** | **L2** | **CO2** |
| | **c.** | Using mathematical tools, write the code to find the curl of $\vec{F} = x\,y^2\,i + 2\,x^2\,yzj - 3yz^2\,k$. | **6** | **L3** | **CO5** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | V is a vector space of polynomials over R. Find a basis and dimension of the subspace W of V, spanned by the polynomial $x_1 = t^3 - 2t^2 + 4t + 1$ ; $x_2 = 2t^3 - 3t^2 + 9t - 1$ ; $x_3 = t^3 + 6t - 5$ ; $x_4 = 2t^3 - 5t^2 + 7t + 5$. | **7** | **L3** | **CO3** |
| | **b.** | Write the vector V = (4, 2, 1) as a linear combination of the vectors $u_1 = (1, -3, 1)$ , $u_2 = (0, 1, 2)$ , $u_3 = (5, 1, 37)$. | **7** | **L2** | **CO3** |
| | **c.** | Define a Inner product space. Consider $f(t) = 3t - 5$ and $g(t) = t^2$ , the inner product $< f.g > = \int_0^t f(t)g(t)\,dt$ . Find $< f.g >$. | **6** | **L3** | **CO3** |
| | | **OR** | | | |
| **Q.6** | **a.** | Express the vector (3, 5, 2) as a linear combination of the vectors (1, 1, 0) , (2, 3, 0) , (0, 0, 1) of $V_3(R)$. | **7** | **L2** | **CO3** |
| | **b.** | Define a Subspace. Show that any plane passing through the origin is a subspace of $R^3$. | **7** | **L2** | **CO3** |
| | **c.** | Show that the function $f(x) = 3x - 2$ and $g(x) = x$ are orthogonal in Pn with inner product $< f.g > = \int_0^t f(x)g(x)\,dx$ | **6** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Find a real root of the equation $x^3 - 2x - 5 = 0$. Correct to three decimal places by the method of false position in (2, 3). | **7** | **L3** | **CO4** |
| | **b.** | Use Lagrange's interpolation formula to find y at x = 10, given<br><table><tr><td>x</td><td>5</td><td>6</td><td>9</td><td>11</td></tr><tr><td>y</td><td>12</td><td>13</td><td>14</td><td>16</td></tr></table> | **7** | **L2** | **CO4** |
| | **c.** | Use Simpson's $3/8^{th}$ rule to evaluate $\int_1^4 e^{1/x}dx$ . | **6** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Find an approximate root of the equation $3x = \cos x + 1$, using the Newton Raphson method, correct to three decimal places near x = 0.6. | **7** | **L3** | **CO4** |

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|---|---|---|---|---|---|
| | **b.** | Given Sin 45° = 0.7071 , Sin 50° = 0.7660 , Sin 55° = 0.8192 , Sin 60° = 0.8660. Find Sin 57° using Newton's Backward interpolation formula. | **7** | **L4** | **CO4** |
| | **c.** | Evaluate $\int_0^1 \frac{dx}{1+x^2}$ by using Simpson's $1/3^{rd}$ rule taking four equal strips. | **6** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Use Taylor's series method to find y at x = 0.1, 0.2, 0.3 considering terms upto the third degree. Given that $\frac{dy}{dx} = x^2 + y^2$ and y(0) = 1. | **7** | **L4** | **CO4** |
| | **b.** | Using Runge – Kutta method of fourth order, find y(0.2) for the equation $\frac{dy}{dx} = \frac{y-x}{y+x}$ , y(0) = 1 taking h = 0.2. | **7** | **L3** | **CO4** |
| | **c.** | If $\frac{dy}{dx} = 2e^x - y$ , y(0) = 2 , y(0.1) = 2.010 , y(0.2) = 2.040 and y(0.3) = 2.090. Find y(0.4) , correct to four decimal places by using Milne's Predictor - Corrector method. | **6** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | Using modified Euler's method find an approximate value of y when x = 0.1. Given that $\frac{dy}{dx} = x + y$ and y = 1 when x = 0. Apply three modification. | **7** | **L2** | **CO4** |
| | **b.** | Using the Runge – Kutta method of fourth order , find y(0.1) given that $dy = 3e^x + 2y$ ; y(0) = 0, taking h = 0.1. | **7** | **L3** | **CO4** |
| | **c.** | Using mathematical tool, write a code to find the solution of $\frac{dy}{dx} = 1 + \frac{y}{x}$ at y(2) taking h = 0.2. Given that y(1) = 2 by Runge – Kutta $4^{th}$ order method. | **6** | **L2** | **CO5** |

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# CBCS SCHEME

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BME306A

## Third Semester B.E./B.Tech. Degree Examination, June/July 2026
## Electric and Hybrid Vehicle Technology

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M: Marks, L: Bloom's level, C: Course outcomes.***

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Briefly explain the history of EV from year 1897; until now by mentioning specification of at least two Vehicles. | **08** | **L1** | **CO1** |
| | **b.** | With neat sketches, explain the Power Transmission Path in :<br>i) EV ii) HEV | **12** | **L1** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Compare SIICEV and plug-in BEV based on WTW analysis with corresponding range of pollution levels and efficiency values. | **10** | **L2** | **CO1** |
| | **b.** | Mention the reason for disappearance of EV in 1920s. | **04** | **L1** | **CO1** |
| | **c.** | Explain any Six advantage of HEV. | **06** | **L12** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain the Thermal and Mechanical Energy Storage Devices with a neat sketch. Discuss the reason for its unsuitable for EV. | **12** | **L2** | **CO2** |
| | **b.** | With a neat sketch, explain the components and working of a Battery Cell. | **08** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | With suitable expression, explain the following Battery Parameters:<br>i) Battery Capacity<br>ii) State of Charge (SoC)<br>iii) Depth of Discharge (DoD) | **10** | **L2** | **CO2** |
| | **b.** | With a neat sketch, explain the usage of Fly Wheel in EV. | **05** | **L2** | **CO2** |
| | **c.** | With a neat sketch, explain Symmetrical Ultracapacitor. | **05** | **L2** | **CO2** |

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| | | **Module – 3** | | | |
| **Q.5** | **a.** | With a neat sketch, Stator and Rotor Electric Circuit, explain the working of Squirrel Cage Induction Motor. | **10** | **L2** | **CO3** |
| | **b.** | With a neat sketch, explain surface PMSM. Differentiate this with interior PMSM. | **10** | **L2** | **CO3** |
| | | **OR** | | | |
| **Q.6** | **a.** | Explain the types of Reluctance Motor. Discuss with a neat sketch Switched Reluctance Motor | **12** | **L2** | **CO3** |
| | **b.** | With a neat graph, explain Torque-Speed Envelop of Traction Motor. Discuss its need in design of Stator and Winding. | **08** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Compare the fundamental difference between FC and battery technology. | **06** | **L3** | **CO4** |
| | **b.** | With a neat sketch of Vehicle on Inclination, explain:<br>i) Aerodynamic drag<br>ii) Grading resistance<br>iii) Rolling resistance<br>iv) Tractive force.<br>Assume moving vehicle is at constant speed. Also mention the forces to be considered when the vehicle accelerates. | **14** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | With a suitable characteristic curve, explain the Mass of Battery to overcome drag at various speed for NiCad Battery and PbA Battery. | **10** | **L2** | **CO4** |
| | **b.** | Explain the critical effect of Mass of EV on performance, range and cost of EV. | **05** | **L2** | **CO4** |
| | **c.** | With a suitable sketch, explain torque available at Motor and Torque required to drive the wheel in EV. | **05** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Discuss the features of V2G Technology of EV. | **08** | **L1** | **CO5** |
| | **b.** | With a neat circuit diagram, explain Power Stages in three-Phase DC fast charger. | **12** | **L2** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | With a neat sketch, explain Charging Station Concept with AC Coupling | **12** | **L2** | **CO5** |
| | **b.** | Write a note on Micro Grids and Control. | **08** | **L2** | **CO5** |

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# CBCS SCHEME

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**BME405A**

## Fourth Semester B.E./B.Tech. Degree Examination, June/July 2026
## Non Traditional Machining

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Define Non Traditional Machining Process. Give complete classification of NTM. | 10 | L2 | CO1 |
| | b. | Justify the need of unconventional manufacturing process in today's industries. | 06 | L2 | CO1 |
| | c. | List the application of NTM. | 04 | L1 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | List and explain the various factors to be considered for selection of machining process in NTM. | 10 | L2 | CO1 |
| | b. | Differentiate between Conventional and Non Conventional Machining process with examples. | 06 | L1 | CO1 |
| | c. | List any 4 advantages and limitation of NTM. | 04 | L1 | CO1 |
| | | **Module – 2** | | | |
| Q.3 | a. | Describe the effect of following process parameters on Ultrasonic Machining:<br>(i) Amplitude and Frequency of vibration of the tool<br>(ii) Grain size<br>(iii) Slurry concentration<br>(iv) Viscosity<br>(v) Static load | 10 | L2 | CO2 |
| | b. | With neat sketch explain the working principle of USM with application of USM. | 10 | L2 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Explain the effect of following variables that influence the MRR in AJM with neat sketch:<br>(i) Standoff distance<br>(ii) Type of abrasive<br>(iii) Carrier gas<br>(iv) Velocity of abrasive jet<br>(v) Work material | 10 | L2 | CO2 |
| | b. | Sketch and explain AJM. | 10 | L2 | CO2 |

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| | | **Module – 3** | | | |
| **Q.5** | **a.** | Explain the following in Chemical Machining Process:<br>(i) Maskants (ii) Etchants | **08** | **L2** | **CO3** |
| | **b.** | With a neat sketch explain the ECG. | **08** | **L2** | **CO3** |
| | **c.** | Differentiate between Chemical Milling and Chemical Blanking. | **04** | **L2** | **CO3** |
| | | **OR** | | | |
| **Q.6** | **a.** | Describe various process parameters affecting ECM. | **10** | **L2** | **CO3** |
| | **b.** | With a neat sketch explain the working principle of Chemical Machining Process. | **10** | **L2** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | With a neat sketch explain the working principle of PAM with advantages. | **10** | **L2** | **CO4** |
| | **b.** | Distinguish between Non Transferred and Transferred Plasma torch mode of operation. | **10** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | With a neat sketch explain the working principle of EDM. | **10** | **L2** | **CO4** |
| | **b.** | With a neat sketch explain Travelling Wire EDM. | **10** | **L2** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Elucidate process parameters and process capabilities of EBM. | **10** | **L2** | **CO5** |
| | **b.** | Illustrate the working principle of EBM with a neat sketch. | **10** | **L2** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Explain the working principle of LBM. List application of LBM. | **10** | **L2** | **CO5** |
| | **b.** | What are the characteristics of $CO_2$ and Nd-YAG (Neodymium Yttrium – Aluminium Garnet) Lasers? | **06** | **L2** | **CO1** |
| | **c.** | What are process parameters of LBM and also mention limitation of LBM. | **04** | **L2** | **CO5** |

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CBCS SCHEME

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BPHYC102/202

# First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026

## Applied Physics for Civil Engineering Stream

Time: 3 hrs. Max. Marks:100

**Note:** ***1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Hand Book is permitted.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| 1 | a. | Define Simple Harmonic Oscillation and give two examples. Obtain the differential equation for simple harmonic oscillation using Hooke's Law. | 6 | L2 | CO1 |
| | b. | Classify the waves based on Mach number and mention any five applications of shock waves. | 9 | L2 | CO1 |
| | c. | A mass 0.5 kg causes on extension 0.03 m in a spring and the system is set for oscillations.<br>Find :<br>i) The force constant 'K' of the spring<br>ii) Angular frequency ω<br>iii) Period 'T' of the resulting oscillation. | 5 | L3 | CO1 |
| | | **OR** | | | |
| 2 | a. | Set up the differential equation for forced oscillations and assuming the equations of amplitude and phase discuss the dependence of amplitude on frequency of the applied external periodic force. | 9 | L2 | CO1 |
| | b. | Derive the expressions for the effective spring constant of springs in series and parallel combination. | 6 | L2 | CO1 |
| | c. | In a Reddy shock tube experiment, the time taken to travel between the two sensors is 195 μs. If the distance between two sensors is 100 mm. Calculate the Mach number. Assume speed of sound as 340 m/s. | 5 | L3 | CO1 |
| | | **Module – 2** | | | |
| 3 | a. | Derive the expression for bending moment with a neat diagram. | 9 | L2 | CO1 |
| | b. | Explain the nature of elasticity with the help of stress-strain curve. | 6 | L2 | CO1 |
| | c. | Calculate the extension produced in a wire of length 2 m and radius $0.013 \times 10^{-2}$m due to a force of 14.7 N, applied along its length. Given Young's modulus of material of wire $Y = 2.1 \times 10^{11}$ N/m$^2$. | 5 | L3 | CO1 |



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| | | **OR** | | | |
| **4** | a. | Define Poisson's ratio. Mention its limiting value. Derive the relation between Young's modulus, Rigidity modulus and Poisson's ratio. | **8** | **L2** | **CO1** |
| | b. | Explain Beam, types of beams, bending moment, ductile fracture and brittle fracture. | **8** | **L2** | **CO1** |
| | c. | Calculate the force required to produce an extension of 1 mm in steel wire of length 2 meters and diameter 1 mm. Given Young's modulus $Y = 2.1 \times 10^{11}$ N/m$^2$. | **4** | **L3** | **CO1** |
| | | **Module – 3** | | | |
| **5** | a. | Define reverberation and reverberation time and hence derive Sabine's formula. | **10** | **L2** | **CO2** |
| | b. | Explain the impact of noise in multistoried buildings. | **5** | **L2** | **CO2** |
| | c. | A hall has a volume of 1,20,000 m$^2$. It has a reverberation time of 1.5 seconds. What is the average absorbing power of the surface if the total absorbing surface area is 25,000 m$^2$? | **5** | **L3** | **CO2** |
| | | **OR** | | | |
| **6** | a. | Define Photometry and Radiometry and also define 4 photometric quantities and 4 radiometric quantities. | **10** | **L2** | **CO2** |
| | b. | Explain the requisites for good acoustics. | **5** | **L2** | **CO2** |
| | c. | A cinema hall has a volume of 7500 m$^3$ with reverberation time of 1.5 second. What should be the total absorption in the hall? | **5** | **L3** | **CO2** |
| | | **Module – 4** | | | |
| **7** | a. | What are optical fibers? Explain principle of optical fiber. With neat diagram explain types of optical fibers. | **9** | **L2** | **CO3** |
| | b. | Define numerical aperture and hence derive an expression for numerical aperture of an optical fiber. | **6** | **L2** | **CO3** |
| | c. | An optical fiber kept in air has core and cladding of refractive index 1.41 and 1.40 respectively. Calculate the numerical aperture and angle of acceptance. | **5** | **L3** | **CO3** |

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| | | **OR** | | | |
| **8** | a. | Define :<br>i) LASER<br>ii) Population inversion<br>iii) Active medium<br>iv) Induced absorption<br>v) Pumping<br>vi) Meta stable state. | **6** | **L2** | **CO3** |
| | b. | Discuss the principle, construction and working of optical fiber sensors - Displacement sensor and Temperature sensor. | **9** | **L2** | **CO3** |
| | c. | In a diffraction grating experiment the light undergoes 2$^{nd}$ order diffraction at an angle of 1.5°. Find the wavelength of LASER source given the grating constant = $4.7 \times 10^{-5}$ m. | **5** | **L3** | **CO5** |
| | | **Module – 5** | | | |
| **9** | a. | Discuss the Engineering structure to withstand Earthquake and Tsunami waves. | **7** | **L2** | **CO4** |
| | b. | Define Landslide and describe the causes for landslides. | **8** | **L2** | **CO4** |
| | c. | Intensity of one earthquake is 40 times the intensity of the other. If the magnitude of first earthquake is 8.5, estimate the magnitude of the other. | **5** | **L3** | **CO4** |
| | | **OR** | | | |
| **10** | a. | Explain the classification of Natural Hazards and man-made hazards with examples. | **10** | **L2** | **CO4** |
| | b. | What are the causes of forest fire and how are they detected using remote sensing. | **6** | **L2** | **CO4** |
| | c. | How many times more intense is a 5.0 magnitudes earthquake compared to a 1.0 magnitude earthquake? | **4** | **L3** | **CO4** |

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BPHYE102/202

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Applied Physics for EEE Stream

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Handbook is permitted.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Obtain expression for Eigen values and Eigen functions for a particle in a potential well of infinite weight , using Schrodinger time independent wave equation. | **8** | **L2** | **CO1** |
| | **b.** | Explain de-Broglie concept of matter waves and obtain de-Broglie wavelength by analogy. Also express de-Broglie wavelength in different forms. | **7** | **L2** | **CO1** |
| | **c.** | An electron has the velocity 800 m/s measured with uncertainty of 0.04%. Calculate the uncertainty in finding the position of electron. | **5** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | State and explain Heisenberg's uncertainty principle. Show that electron does not exist in the nucleus using this principle. | **8** | **L2** | **CO1** |
| | **b.** | Derive Schrodinger time independent wave equation in 1 dimensional form. | **7** | **L2** | **CO1** |
| | **c.** | Calculate the energy in first two states for an electron in one dimensional potential well of width 10 A°. | **5** | **L3** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain Fermi factor and discuss the variation of Fermi factor with temperature and energy. | **8** | **L2** | **CO2** |
| | **b.** | Explain Polar and Non polar dielectrics with suitable examples. | **7** | **L2** | **CO2** |
| | **c.** | A certain super conducting material has critical temperature 10 K. It has critical magnetic field at 0 K as 0.2T. Calculate the critical magnetic field at 8 K. | **5** | **L3** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain Internal field in dielectrics. Using the expression for internal field , obtain Clausius – Mossotti equation. | **8** | **L2** | **CO2** |
| | **b.** | Discuss Meissner effect and hence the classification of super conductors. | **7** | **L2** | **CO2** |
| | **c.** | Evaluate the probability of occupying electron in the energy state 0.04 eV above Fermi level at 300 K. | **5** | **L3** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Obtain the expression for energy density of radiation in terms of Einstein's coefficients. | **8** | **L2** | **CO1** |
| | **b.** | Discuss the construction and working of $CO_2$ LASER with necessary diagram. | **7** | **L2** | **CO1** |

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| | **c.** | The refractive index of core and cladd are 1.55 and 1.45 respectively in an optical fiber. Calculate the numerical aperture and angle of acceptance , if the fiber is in air. | **5** | **L3** | **CO1** |
| | | **OR** | | | |
| **Q.6** | **a.** | Obtain an expression for numerical aperture of an optical fiber with relevant ray diagram. Discuss the condition for light propagation in the fiber. | **8** | **L2** | **CO1** |
| | **b.** | Explain the types of optical fibers with relevant diagrams. | **7** | **L2** | **CO1** |
| | **c.** | Calculate the ratio of population between two energy levels leading to laser emission of wavelength 630 nm at 400 K. | **5** | **L3** | **CO1** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Discuss gradient of a scalar, divergence of a vector and curl of a vector with example and significance. | **8** | **L2** | **CO3** |
| | **b.** | State and prove Gauss Divergence Theorem and state Stoke's Theorem. | **7** | **L2** | **CO3** |
| | **c.** | Calculate the capacitance required to give the resonant frequency of a LCR series circuit to be 600 Hz if the inductance used is 100 mH. | **5** | **L3** | **CO5** |
| | | **OR** | | | |
| **Q.8** | **a.** | Discuss Line integral , Surface integer and Volume integral with necessary diagram. | **8** | **L2** | **CO3** |
| | **b.** | Explain the concept of displacement current and obtain an expression for it, in terms of area and distance between the plates of a capacitor. | **7** | **L2** | **CO3** |
| | **c.** | An optical fiber produces a spot on the screen with 0.5 cm diameter. If the screen to light emerging end of the fiber is 2 cm, calculate the Numerical aperture. | **5** | **L3** | **CO5** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | State and explain Hall Effect. Obtain an expression for Hall Coefficient. | **8** | **L2** | **CO4** |
| | **b.** | Explain the construction , working and application of photo diode. | **7** | **L2** | **CO4** |
| | **c.** | The Intrinsic Germanium at 200 K has carrier concentration $2.4 \times 10^{19}$ / $m^3$, electron mobility = 0.39 $m^2$ $v^{-1}$ $s^{-1}$ , hole mobility = 0.19 $m^2$ $v^{-1}$ $s^{-1}$. Find resistivity of the sample. | **5** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | Explain the construction and working of semiconductor LASER diode with energy level diagram. | **8** | **L2** | **CO4** |
| | **b.** | Obtain an expression for electrical conductivity of semiconductor. Extend the study for p type and n type semiconductor. | **7** | **L2** | **CO4** |
| | **c.** | The Hall coefficient of a material is $-3.68 \times 10^{-5}$ $m^3$/C. What is the type of charge carrier and find the carrier concentration. | **5** | **L3** | **CO4** |

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# CBCS SCHEME

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**BPHYM102/202**

## First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026
## Applied Physics for ME Stream

Time: 3 hrs. Max. Marks:100

**Note:** *1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*
*3. VTU Formula Hand Book is permitted.*

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| 1 | a. | Obtain differential equation for a body undergoing forced oscillation and mention expression for amplitude and phase of forced oscillation. | 9 | L2 | CO1 |
| | b. | Describe the construction and working of Reddy shock tube with the help of a diagram. | 6 | L2 | CO1 |
| | c. | A mass of 0.4 kg causes an extension of 0.02 m in a spring and the system is set for oscillations. Find the force constant of the spring. | 5 | L3 | CO1 |
| | | **OR** | | | |
| 2 | a. | What are damped oscillations? Give the theory of damped oscillation and hence discuss the case of critical damping. | 9 | L2 | CO1 |
| | b. | What are Shock Waves? Mention its applications. | 6 | L2 | CO1 |
| | c. | In a Reddy shock tube experiment the time taken by shock waves to travel between the two sensors is 180 μsec, if the distance between the two sensors is 100 mm. Calculate the Mach Number. Assume that speed of sound is 340 m/sec. | 5 | L3 | CO1 |
| | | **Module – 2** | | | |
| 3 | a. | Define Young's Modulus (Y), Rigidity Modulus(η) and Poisson's Ratio (σ). Derive the relation between them. | 10 | L2 | CO1 |
| | b. | Explain different types of beams and mention engineering applications. | 6 | L2 | CO1 |
| | c. | The Bulk modulus for a material is $60 \times 10^9$ N/m$^2$ and its modulus of rigidity is $40 \times 10^9$ N/m$^2$. Calculate the Young's Modulus for the given material. | 4 | L3 | CO1 |



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| | | **OR** | | | |
| **4** | a. | Define Bending Moment. Derive the expression for Bending Moment in terms of Moment of Inertia. | **10** | **L2** | **CO1** |
| | b. | Explain the Nature of Elasticity with the help of stress-strain diagram. | **6** | **L2** | **CO1** |
| | c. | Calculate the force required to produce an extension of 1 mm in steel wire of length 2 m and diameter 1 mm (Given Young's Modulus of wire $Y = 2 \times 10^{11}$ N/m$^2$.) | **4** | **L3** | **CO1** |
| | | **Module – 3** | | | |
| **5** | a. | Discuss the Seeback effect and Peltier effect with their coefficients. | **9** | **L2** | **CO2** |
| | b. | Explain the application of thermoelectricity on refrigerator. | **6** | **L2** | **CO2** |
| | c. | The thermo emf of a thermocouple is 1200 μV when the cold junction is at 0°C and hot junction at 100°C. Calculate the constants a and b, if the neutral temperature is 300°C. | **5** | **L3** | **CO2** |
| | | **OR** | | | |
| **6** | a. | Explain the construction and working of Thermoelectric Generator (TEG). | **9** | **L2** | **CO2** |
| | b. | Explain working of thermoelectric coolers. | **6** | **L2** | **CO2** |
| | c. | The emf in microvolts of a thermocouple one junction of which is at 0°C is given by $e = 1600\ T - 4T^2$ where T°C is the temperature of hot junction. Find neutral temperature and Pettier coefficient. | **5** | **L3** | **CO2** |
| | | **Module – 4** | | | |
| **7** | a. | Describe the construction and working of porous plug experiment with neat diagram. | **8** | **L2** | **CO3** |
| | b. | Explain the construction, working and advantages of platinum resistance thermometer. | **8** | **L2** | **CO3** |
| | c. | In a Joule –Thomson experiment temperature changes from 100°C to 150°C for a change of pressure from 20 MPA to 170 MPA. Calculate the Joule –Thomson coefficient. | **4** | **L2** | **CO3** |
| | | **OR** | | | |
| **8** | a. | Explain the Liquefaction of oxygen by cascade process. | **8** | **L2** | **CO3** |
| | b. | What is Joule – Thomson effect? Derive $\Delta T = \frac{(P_1 - P_2)}{C_p}\left[\frac{2a}{R} b\right]$ and hence discuss 3 cases. | **8** | **L2** | **CO3** |
| | c. | Write the application of cryogenic in aerospace and food processing. | **4** | **L2** | **CO3** |



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| **Module – 5** | | | | | |
| **9** | a. | Explain the construction and working of X-ray diffractometer and the crystal size determined using Scherrer equation. | **8** | **L2** | **CO4** |
| | b. | With a neat diagram, explain the principle, construction and working of AFM. | **8** | **L2** | **CO4** |
| | c. | Determine the wavelength of X-Rays for crystal size of 1190 mm peak width 0.5° and peak position 35° for a cubic crystal. Given Scherrer constant K = 0.92. | **4** | **L2** | **CO4** |
| **OR** | | | | | |
| **10** | a. | With a neat diagram, explain the principle, construction and working of Scanning Electron Microscopy (SEM). | **8** | **L2** | **CO4** |
| | b. | Describe the principle, construction and working of Transmission Electron Microscopy (TEM). | **8** | **L2** | **CO4** |
| | c. | A beam of X-Ray's, $\lambda = 0.842$A° is incident on a crystal at a glancing angle of 8.583° when first order Bragg reflection occurs. Calculate the glancing angle for 3$^{rd}$ order reflection. | **4** | **L2** | **CO4** |

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CBCS SCHEME

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BPHYM102/202

# First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026

## Applied Physics for ME Stream

Time: 3 hrs. Max. Marks:100

**Note:** *1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*
*3. VTU Formula Hand Book is permitted.*

| | | **Module – 1** | **M** | **L** | **C** |
|---|---|---|---|---|---|
| **1** | a. | Obtain differential equation for a body undergoing forced oscillation and mention expression for amplitude and phase of forced oscillation. | **9** | **L2** | **CO1** |
| | b. | Describe the construction and working of Reddy shock tube with the help of a diagram. | **6** | **L2** | **CO1** |
| | c. | A mass of 0.4 kg causes an extension of 0.02 m in a spring and the system is set for oscillations. Find the force constant of the spring. | **5** | **L3** | **CO1** |
| | | **OR** | | | |
| **2** | a. | What are damped oscillations? Give the theory of damped oscillation and hence discuss the case of critical damping. | **9** | **L2** | **CO1** |
| | b. | What are Shock Waves? Mention its applications. | **6** | **L2** | **CO1** |
| | c. | In a Reddy shock tube experiment the time taken by shock waves to travel between the two sensors is 180 μsec, if the distance between the two sensors is 100 mm. Calculate the Mach Number. Assume that speed of sound is 340 m/sec. | **5** | **L3** | **CO1** |
| | | **Module – 2** | | | |
| **3** | a. | Define Young's Modulus (Y), Rigidity Modulus($\eta$) and Poisson's Ratio ($\sigma$). Derive the relation between them. | **10** | **L2** | **CO1** |
| | b. | Explain different types of beams and mention engineering applications. | **6** | **L2** | **CO1** |
| | c. | The Bulk modulus for a material is $60 \times 10^9$ N/m$^2$ and its modulus of rigidity is $40 \times 10^9$ N/m$^2$. Calculate the Young's Modulus for the given material. | **4** | **L3** | **CO1** |



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| | | **OR** | | | |
| **4** | a. | Define Bending Moment. Derive the expression for Bending Moment in terms of Moment of Inertia. | **10** | **L2** | **CO1** |
| | b. | Explain the Nature of Elasticity with the help of stress-strain diagram. | **6** | **L2** | **CO1** |
| | c. | Calculate the force required to produce an extension of 1 mm in steel wire of length 2 m and diameter 1 mm (Given Young's Modulus of wire $Y = 2 \times 10^{11}$ N/m$^2$.) | **4** | **L3** | **CO1** |
| | | **Module – 3** | | | |
| **5** | a. | Discuss the Seeback effect and Peltier effect with their coefficients. | **9** | **L2** | **CO2** |
| | b. | Explain the application of thermoelectricity on refrigerator. | **6** | **L2** | **CO2** |
| | c. | The thermo emf of a thermocouple is 1200 μV when the cold junction is at 0°C and hot junction at 100°C. Calculate the constants a and b, if the neutral temperature is 300°C. | **5** | **L3** | **CO2** |
| | | **OR** | | | |
| **6** | a. | Explain the construction and working of Thermoelectric Generator (TEG). | **9** | **L2** | **CO2** |
| | b. | Explain working of thermoelectric coolers. | **6** | **L2** | **CO2** |
| | c. | The emf in microvolts of a thermocouple one junction of which is at 0°C is given by $e = 1600\,T - 4T^2$ where T°C is the temperature of hot junction. Find neutral temperature and Pettier coefficient. | **5** | **L3** | **CO2** |
| | | **Module – 4** | | | |
| **7** | a. | Describe the construction and working of porous plug experiment with neat diagram. | **8** | **L2** | **CO3** |
| | b. | Explain the construction, working and advantages of platinum resistance thermometer. | **8** | **L2** | **CO3** |
| | c. | In a Joule –Thomson experiment temperature changes from 100°C to 150°C for a change of pressure from 20 MPA to 170 MPA. Calculate the Joule –Thomson coefficient. | **4** | **L2** | **CO3** |
| | | **OR** | | | |
| **8** | a. | Explain the Liquefaction of oxygen by cascade process. | **8** | **L2** | **CO3** |
| | b. | What is Joule – Thomson effect? Derive $\Delta T = \frac{(P_1 - P_2)}{C_p}\left[\frac{2a}{R} b\right]$ and hence discuss 3 cases. | **8** | **L2** | **CO3** |
| | c. | Write the application of cryogenic in aerospace and food processing. | **4** | **L2** | **CO3** |

**Module – 5**

| | | | | | |
|---|---|---|---|---|---|
| **9** | a. | Explain the construction and working of X-ray diffractometer and the crystal size determined using Scherrer equation. | **8** | **L2** | **CO4** |
| | b. | With a neat diagram, explain the principle, construction and working of AFM. | **8** | **L2** | **CO4** |
| | c. | Determine the wavelength of X-Rays for crystal size of 1190 mm peak width 0.5° and peak position 35° for a cubic crystal. Given Scherrer constant K = 0.92. | **4** | **L2** | **CO4** |
| | | **OR** | | | |
| **10** | a. | With a neat diagram, explain the principle, construction and working of Scanning Electron Microscopy (SEM). | **8** | **L2** | **CO4** |
| | b. | Describe the principle, construction and working of Transmission Electron Microscopy (TEM). | **8** | **L2** | **CO4** |
| | c. | A beam of X-Ray's, $\lambda$ = 0.842A° is incident on a crystal at a glancing angle of 8.583° when first order Bragg reflection occurs. Calculate the glancing angle for 3$^{rd}$ order reflection. | **4** | **L2** | **CO4** |

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BPHYS102/202

# First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026

## Applied Physics for CSE Stream

Time: 3 hrs. Max. Marks:100

**Note:** *1. Answer any FIVE full questions, choosing ONE full question from each module.*
*2. M : Marks , L: Bloom's level , C: Course outcomes.*
*3. VTU Formula Hand Book is permitted.*

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| 1 | a. | Derive an expression for energy density of incident radiation in terms of Einstein's co-efficient. | 8 | L2 | CO1 |
| | b. | Define Acceptance Angle and Numerical Aperture. Derive an expression for numerical aperture interms of refractive indices of core, cladding and surrounding. | 8 | L2 | CO1 |
| | c. | Obtain the attenuation co-efficient of the given fiber of length 1500 m, when a light signal of power 100 MW emerges out of the fiber with a power of 70 MW. | 4 | L3 | CO1 |
| | | **OR** | | | |
| 2 | a. | Define Population Inversion. Explain the construction and working of a semiconductor laser with the help of energy level diagram. | 8 | L2 | CO1 |
| | b. | Discuss the three different types of optical fibers based on modes of propagation and refractive index profile. | 8 | L2 | CO1 |
| | c. | In a diffraction grating experiment the LASER light undergoes second order diffraction for diffraction angle 51.62°. The grating constant $d = 1.69 \times 10^{-6}$m and the distance between the grating and the source is 8 cm. Find the wavelength of LASER light. | 4 | L3 | CO1 |
| | | **Module – 2** | | | |
| 3 | a. | Setup Schrodinger time independent wave equation in one dimension. | 9 | L2 | CO2 |
| | b. | State and explain Heisenberg's uncertainty principle. Using the principle show that electron does not exist inside the nucleus. | 6 | L2 | CO2 |
| | c. | An electron is associated with a de-Broglie wavelength of 1 nm. Calculate the energy and the corresponding momentum of the electron. | 5 | L3 | CO2 |



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| | | **OR** | | | |
| **4** | a. | Find the Eigen values and Eigen functions for a particle in one dimensional potential well of infinite height. | **9** | **L2** | **CO2** |
| | b. | Define Phase Velocity and Group velocity. Derive an expression for de-Broglie wavelength by analogy. | **6** | **L2** | **CO2** |
| | c. | Calculate the energy of the first three states for an electron in one dimensional potential well of width 0.1 nm. | **5** | **L3** | **CO2** |
| | | **Module – 3** | | | |
| **5** | a. | Explain the Pauli matrices and apply Pauli matrices on the states $\lvert 1\rangle$ and $\lvert 0\rangle$. | **8** | **L2** | **CO2** |
| | b. | Elucidate the difference between Classical and Quantum Computing. | **6** | **L2** | **CO2** |
| | c. | Explain the matrix representation of $\lvert 0\rangle$ and $\lvert 1\rangle$ states and apply identity operator I to $\lvert 0\rangle$ and $\lvert 1\rangle$ states. | **6** | **L2** | **CO2** |
| | | **OR** | | | |
| **6** | a. | Explain single qubit gate and multiple qubit gate with an example for each. | **8** | **L2** | **CO2** |
| | b. | What is Bloch Sphere? Explain the representation of qubit using Bloch Sphere. | **6** | **L2** | **CO2** |
| | c. | A linear operator 'X' operates such that $X\lvert 0\rangle = \lvert 1\rangle$ and $X\lvert 1\rangle = \lvert 0\rangle$. Find the matrix representation of 'X'. | **6** | **L2** | **CO2** |
| | | **Module – 4** | | | |
| **7** | a. | Define Fermi Factor and discuss the variation of Fermi factor with temperature and energy. | **8** | **L2** | **CO3** |
| | b. | Describe Meissner effect and hence classify super conductors into soft and hard superconductors using M-H graphs. | **7** | **L2** | **CO3** |
| | c. | A superconducting tin has a critical temperature of 3.7 K at zero magnetic field and a critical field of 0.0306T at 0K. Find the critical field at 2K. | **5** | **L3** | **CO3** |
| | | **OR** | | | |
| **8** | a. | Explain DC and AC Josephson effects. Give the qualitative explanation of RF squid with the help of a diagram. | **8** | **L2** | **CO3** |
| | b. | Enumerate the failures of Classical free electron theory and assumptions of quantum free electron theory of metals. | **7** | **L2** | **CO3** |
| | c. | Calculate the probability of occupation of an energy level 0.02eV above the Fermi level at temperature 27°C. | **5** | **L3** | **CO3** |



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## Module – 5

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| **9** | a. | Discuss timing in Linear motion, Uniform motion, Slow in and Slow out. | **8** | **L2** | **CO4** |
| | b. | Distinguish between Descriptive and Inferential statistics. | **6** | **L2** | **CO4** |
| | c. | In an optic fiber experiment, the light passing thorough the fiber, made a spot diameter of 8 mm on the screen. The distance between the end of the optical fiber cable and the screen is 3.1 cm. Calculate the angle of acceptance and numerical aperture of the given optical fiber. | **6** | **L3** | **CO5** |
| | | **OR** | | | |
| **10** | a. | Describe Jumping and parts of jumping in animation. | **8** | **L2** | **CO4** |
| | b. | Discuss modeling of the probability for proton decay. | **6** | **L2** | **CO4** |
| | c. | A slowing – in object in an animation has a first frame distance 0.5m and the first slow in frame 0.35 m. Calculate the base distance and the number of frames in sequence. | **6** | **L3** | **CO4** |

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**CBCS SCHEME**

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**BPHYS102/202**

# First/Second Semester B.E/B.Tech. Degree Examination, June/July 2026
## Applied Physics for CSE Stream

Time: 3 hrs. Max. Marks:100

**Note:** ***1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Hand Book is permitted.***

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **1** | a. | Derive an expression for energy density of incident radiation in terms of Einstein's co-efficient. | **8** | **L2** | **CO1** |
| | b. | Define Acceptance Angle and Numerical Aperture. Derive an expression for numerical aperture interms of refractive indices of core, cladding and surrounding. | **8** | **L2** | **CO1** |
| | c. | Obtain the attenuation co-efficient of the given fiber of length 1500 m, when a light signal of power 100 MW emerges out of the fiber with a power of 70 MW. | **4** | **L3** | **CO1** |
| | | **OR** | | | |
| **2** | a. | Define Population Inversion. Explain the construction and working of a semiconductor laser with the help of energy level diagram. | **8** | **L2** | **CO1** |
| | b. | Discuss the three different types of optical fibers based on modes of propagation and refractive index profile. | **8** | **L2** | **CO1** |
| | c. | In a diffraction grating experiment the LASER light undergoes second order diffraction for diffraction angle 51.62°. The grating constant $d = 1.69 \times 10^{-6}$m and the distance between the grating and the source is 8 cm. Find the wavelength of LASER light. | **4** | **L3** | **CO1** |
| | | **Module – 2** | | | |
| **3** | a. | Setup Schrodinger time independent wave equation in one dimension. | **9** | **L2** | **CO2** |
| | b. | State and explain Heisenberg's uncertainty principle. Using the principle show that electron does not exist inside the nucleus. | **6** | **L2** | **CO2** |
| | c. | An electron is associated with a de-Broglie wavelength of 1 nm. Calculate the energy and the corresponding momentum of the electron. | **5** | **L3** | **CO2** |



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| | | **OR** | | | |
| **4** | a. | Find the Eigen values and Eigen functions for a particle in one dimensional potential well of infinite height. | **9** | **L2** | **CO2** |
| | b. | Define Phase Velocity and Group velocity. Derive an expression for de-Broglie wavelength by analogy. | **6** | **L2** | **CO2** |
| | c. | Calculate the energy of the first three states for an electron in one dimensional potential well of width 0.1 nm. | **5** | **L3** | **CO2** |
| | | **Module – 3** | | | |
| **5** | a. | Explain the Pauli matrices and apply Pauli matrices on the states $\vert 1\rangle$ and $\vert 0\rangle$. | **8** | **L2** | **CO2** |
| | b. | Elucidate the difference between Classical and Quantum Computing. | **6** | **L2** | **CO2** |
| | c. | Explain the matrix representation of $\vert 0\rangle$ and $\vert 1\rangle$ states and apply identity operator I to $\vert 0\rangle$ and $\vert 1\rangle$ states. | **6** | **L2** | **CO2** |
| | | **OR** | | | |
| **6** | a. | Explain single qubit gate and multiple qubit gate with an example for each. | **8** | **L2** | **CO2** |
| | b. | What is Bloch Sphere? Explain the representation of qubit using Bloch Sphere. | **6** | **L2** | **CO2** |
| | c. | A linear operator 'X' operates such that X $\vert 0\rangle = \vert 1\rangle$ and X $\vert 1\rangle = \vert 0\rangle$. Find the matrix representation of 'X'. | **6** | **L2** | **CO2** |
| | | **Module – 4** | | | |
| **7** | a. | Define Fermi Factor and discuss the variation of Fermi factor with temperature and energy. | **8** | **L2** | **CO3** |
| | b. | Describe Meissner effect and hence classify super conductors into soft and hard superconductors using M-H graphs. | **7** | **L2** | **CO3** |
| | c. | A superconducting tin has a critical temperature of 3.7 K at zero magnetic field and a critical field of 0.0306T at 0K. Find the critical field at 2K. | **5** | **L3** | **CO3** |
| | | **OR** | | | |
| **8** | a. | Explain DC and AC Josephson effects. Give the qualitative explanation of RF squid with the help of a diagram. | **8** | **L2** | **CO3** |
| | b. | Enumerate the failures of Classical free electron theory and assumptions of quantum free electron theory of metals. | **7** | **L2** | **CO3** |
| | c. | Calculate the probability of occupation of an energy level 0.02eV above the Fermi level at temperature 27°C. | **5** | **L3** | **CO3** |



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**Module – 5**

| | | | | | |
|---|---|---|---|---|---|
| **9** | a. | Discuss timing in Linear motion, Uniform motion, Slow in and Slow out. | **8** | **L2** | **CO4** |
| | b. | Distinguish between Descriptive and Inferential statistics. | **6** | **L2** | **CO4** |
| | c. | In an optic fiber experiment, the light passing thorough the fiber, made a spot diameter of 8 mm on the screen. The distance between the end of the optical fiber cable and the screen is 3.1 cm. Calculate the angle of acceptance and numerical aperture of the given optical fiber. | **6** | **L3** | **CO5** |
| | | **OR** | | | |
| **10** | a. | Describe Jumping and parts of jumping in animation. | **8** | **L2** | **CO4** |
| | b. | Discuss modeling of the probability for proton decay. | **6** | **L2** | **CO4** |
| | c. | A slowing – in object in an animation has a first frame distance 0.5m and the first slow in frame 0.35 m. Calculate the base distance and the number of frames in sequence. | **6** | **L3** | **CO4** |

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# CBCS SCHEME

USN | | | | | | | | | |

**BPLCK105B**

## First Semester B.E./B.Tech. Degree Examination, June/July 2026
## Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Write a program in python to read employee data from the console and print the details using suitable messages.<br>Input Data: Employee Name, Id, Salary, address. | 6 | L3 | CO1 |
| | b. | Explain the following statements in python with syntax and examples.<br>i) If statement ii) If – else statement iii) If – elif – else statement. | 8 | L2 | CO1 |
| | c. | Explain two ways of importing modules into application in python with syntax and examples. | 6 | L2 | CO1 |
| | | **OR** | | | |
| Q.2 | a. | Explain the following control transfer statements in python with examples. | 8 | L2 | CO1 |
| | b. | Explain four scope rules of variables in python. | 6 | L2 | CO1 |
| | c. | Write a function in python to find the factorial of a number. Develop a program to compute binomial coefficient. | 6 | L3 | CO2 |
| | | **Module – 2** | | | |
| Q.3 | a. | Read N numbers from console of create a list. Develop a program to find the largest and smallest among the list. | 8 | L3 | CO2 |
| | b. | Explain with a example to each.<br>i) get ( ) ii) set default ( ) | 6 | L2 | CO2 |
| | c. | Explain append( ) and index( ) functions with respect to list in python. | 6 | L2 | CO2 |
| | | **OR** | | | |
| Q.4 | a. | Read a multi-digit number (as chars) from the console. Develop a program to print the frequency of each digit with messages. | 7 | L3 | CO3 |
| | b. | Tuples are immutable. Explain with python program example. | 6 | L2 | CO2 |
| | c. | Develop a program to swap cases of given string.<br>Input : Python<br>Output : PYTHON | 7 | L3 | CO3 |

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| | | | | | |
|---|---|---|---|---|---|
| **Module – 3** | | | | | |
| **Q.5** | **a.** | Explain reading and saving python program variables using shelve module with messages. | **8** | **L2** | **CO3** |
| | **b.** | Explain Join( ) and Split( ) methods with examples. | **8** | **L2** | **CO3** |
| | **c.** | Write a program in python to read and print the contents of a text file. | **4** | **L3** | **CO3** |
| **OR** | | | | | |
| **Q.6** | **a.** | Explain python string handling methods with examples :<br>startswith ( ), rjust( ), strip( ), rstrip( ). | **12** | **L2** | **CO3** |
| | **b.** | Explain with suitable python program segments :<br>i) os.path.base name( ) ii) os.path.join( ) | **8** | **L2** | **CO3** |
| **Module – 4** | | | | | |
| **Q.7** | **a.** | Develop a program to backing up a given folder into a zip file by using relevant modules and suitable methods. | **8** | **L3** | **CO3** |
| | **b.** | Explain the benefits of lagging module giving suitable example. | **6** | **L2** | **CO3** |
| | **c.** | List the differences between shutil.copy( ) and shotil.copytree( ) | **6** | **L2** | **CO3** |
| **OR** | | | | | |
| **Q.8** | **a.** | What are assertions and raising an exception? | **6** | **L2** | **CO3** |
| | **b.** | Develop a python program the traverse the current directory by listing sub.folders and files. | **8** | **L3** | **CO3** |
| | **c.** | Explain IDLE's Debugger. | **6** | **L2** | **CO3** |
| **Module – 5** | | | | | |
| **Q.9** | **a.** | Define Pure function and Modifier. What is the role of pure function and modifiers in applications development with suitable python program? | **8** | **L2** | **CO4** |
| | **b.** | Briefly explain printing of an object with an example. | **6** | **L2** | **CO4** |
| | **c.** | Explain the program development concept 'Prototype and Patch' with example. | **6** | **L2** | **CO4** |
| **OR** | | | | | |
| **Q.10** | **a.** | Explain the following with syntax and suitable code snippet :<br>i) Class definition<br>ii) Instantiation<br>iii) Passing and instance (or object) as argument<br>iv) Instances as return values | **10** | **L3** | **CO4** |
| | **b.** | Develop a program that uses class student, which prompts the user to enter marks in three subjects and calculate total Marks, Percentage and display the score card details. | **10** | **L3** | **CO4** |

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# CBCS SCHEME

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**BPLCK205B**

## Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

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| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Demonstrate with example print( ), input( ), and string replication and develop a program to generate the Fibonacci sequence of length N, read N from console. | **10** | **L2 L3** | **CO1** |
| | **b.** | Explain for, while, break, continue statement in python with examples for each. | **10** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Explain Functions. Explain python functions with parameter and return statement. Develop a program to read name and year of birth of person and print whether person is senior citizen or not. | **10** | **L2 L3** | **CO1** |
| | **b.** | Describe flow control statement. Discuss if and if else statements with flow chart. | **10** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Differentiate between<br>i) = = and < operators when comparing two strings.<br>ii) List slicing and string slicing with examples. | **10** | **L2** | **CO2** |
| | **b.** | Illustrate string traversal using for loop with an example and summarize the role of the in and not in operators in string processing. Also explain list mutability with example. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain the concept of list nesting with a suitable example. Read a multi-digit number (as chars) from the console. Develop a program to print the frequency of each digit with a suitable message. | **10** | **L2 L3** | **CO2** |
| | **b.** | Explain the concept of string immutability with an example and describe string slicing with suitable examples for [:n], [n:] and [n:m] | **10** | **L2** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Examine the key features and operations of python dictionaries and differentiate them from list. Implement a program to demonstrate insertion, deletion and lookup operations in a dictionary. | **10** | **L4** | **CO3** |
| | **b.** | Analyze the concepts of slicing, shape and dtype in Numpy. Illustrate each with a suitable code example showing how these properties affect array operations. | **10** | **L4** | **CO3** |

| | | | | | |
|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.6** | **a.** | Analyze the concept of file handling in python and illustrate both reading and writing operations using relevant example program. | **10** | **L4** | **CO3** |
| | **b.** | Design a function that takes two objects representing complex numbers and return a new object representing their sum. Construct a class complex to model complex numbers and implement a program to compute the cumulative addition of N(N $\geq$ 2) complex numbers. | **10** | **L4** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Inspect the use of random and time modules in python. Develop a program that simulate a simple stopwatch that records random time intervals and calculate the average elapsed time. | **10** | **L4** | **CO4** |
| | **b.** | Develop a python script to create a module utilities.py with functions for square, cube and factorial of number. Import it in another file using all three important variants. Demonstrate the usage of each of the imported function. | **10** | **L3** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | Develop data summary generator read a CSV file (like COVID data or weather stats), convert to dictionary form and allow the user to run summary queries : max, min, average by column (p = 10). | **10** | **L3** | **CO4** |
| | **b.** | Examine the concept of name - spaces in python. Develop program to illustrate how variable lookup follows the LEGB (Local, Enclosing Global, Built-in) rule. | **10** | **L4** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Explain the concepts of object identity in python using a point class. Illustrate how 'is' operator determines sameness and describe what happens when one reference is modified. | **10** | **L2** | **CO5** |
| | **b.** | Differentiate between pure function and modifiers in python and support your explanation with coding example. | **10** | **L2** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Apply exception handling mechanism in python by developing a program that demonstrate the use of the try, except, else and finally block. Justify why exception handling is essential. | **10** | **L3** | **CO5** |
| | **b.** | Apply the principle of polymorphism by implementing a common interface method in two distinct classes and writing a program that invokes this method on objects of both classes. | **10** | **L3** | **CO5** |

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# CBCS SCHEME

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**BPOPS103/203**

## First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

## Principles of Programming using C

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Explain with a neat diagram, the computer model. | **12** | **L1** | **CO2** |
| | **b.** | Explain input and output devices in C. | **8** | **L1** | **CO2** |
| | | **OR** | | | |
| **Q.2** | **a.** | Explain the structure of a C program. | **12** | **L1** | **CO2** |
| | **b.** | Explain the basic datatypes in C with examples. | **8** | **L1** | **CO2** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | List and explain conditional branching statements in C. | **10** | **L1** | **CO2** |
| | **b.** | Write a C program to find if the given number is palindrome or not. | **10** | **L3** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain type casting with examples. | **10** | **L1** | **CO2** |
| | **b.** | Write a C program to simulate a simple calculator. | **10** | **L3** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | What is an array? Illustrate the definition and initialization of a 2 – dimensional array. | **10** | **L2** | **CO3** |
| | **b.** | What are the advantages of using functions? Illustrate the passing of parameters. | **10** | **L2** | **CO3** |
| | | **OR** | | | |
| **Q.6** | **a.** | Explain recursive functions with example. | **8** | **L1** | **CO3** |
| | **b.** | Write a C program to perform addition of 2-dimensional matrix A and B, each of order $3 \times 3$. | **12** | **L3** | **CO3** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Illustrate the concept of array of strings with an example program. | **8** | **L2** | **CO4** |
| | **b.** | Write a C program to find the length of a given string without using any built-in functions. | **12** | **L3** | **CO3** |

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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.8** | **a.** | Illustrate passing arguments to functions using pointers. | **10** | **L2** | **CO4** |
| | **b.** | Write a C program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of 'n' real numbers. | **10** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Compare and contrast structures and unions. Illustrate the usage of structure and union with one example. | **10** | **L2** | **CO4** |
| | **b.** | Write a C program to illustrate the usage of type def with structures. Also list the output clearly. | **10** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | What are files? List and explain any 4 file operations in C. | **8** | **L2** | **CO2** |
| | **b.** | Write a C program to print the name, USN, Subject and marks of n students using structure. | **12** | **L3** | **CO4** |

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CBCS SCHEME

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BPOPS103/203

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
# Principles of Programming using C

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| Q.1 | a. | Explain with a neat diagram, the computer model. | 12 | L1 | CO2 |
| | b. | Explain input and output devices in C. | 8 | L1 | CO2 |
| | | OR | | | |
| Q.2 | a. | Explain the structure of a C program. | 12 | L1 | CO2 |
| | b. | Explain the basic datatypes in C with examples. | 8 | L1 | CO2 |
| | | Module – 2 | | | |
| Q.3 | a. | List and explain conditional branching statements in C. | 10 | L1 | CO2 |
| | b. | Write a C program to find if the given number is palindrome or not. | 10 | L3 | CO2 |
| | | OR | | | |
| Q.4 | a. | Explain type casting with examples. | 10 | L1 | CO2 |
| | b. | Write a C program to simulate a simple calculator. | 10 | L3 | CO2 |
| | | Module – 3 | | | |
| Q.5 | a. | What is an array? Illustrate the definition and initialization of a 2 – dimensional array. | 10 | L2 | CO3 |
| | b. | What are the advantages of using functions? Illustrate the passing of parameters. | 10 | L2 | CO3 |
| | | OR | | | |
| Q.6 | a. | Explain recursive functions with example. | 8 | L1 | CO3 |
| | b. | Write a C program to perform addition of 2-dimensional matrix A and B, each of order $3 \times 3$. | 12 | L3 | CO3 |
| | | Module – 4 | | | |
| Q.7 | a. | Illustrate the concept of array of strings with an example program. | 8 | L2 | CO4 |
| | b. | Write a C program to find the length of a given string without using any built-in functions. | 12 | L3 | CO3 |



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|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.8** | **a.** | Illustrate passing arguments to functions using pointers. | **10** | **L2** | **CO4** |
| | **b.** | Write a C program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of 'n' real numbers. | **10** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Compare and contrast structures and unions. Illustrate the usage of structure and union with one example. | **10** | **L2** | **CO4** |
| | **b.** | Write a C program to illustrate the usage of type def with structures. Also list the output clearly. | **10** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.10** | **a.** | What are files? List and explain any 4 file operations in C. | **8** | **L2** | **CO2** |
| | **b.** | Write a C program to print the name, USN, Subject and marks of n students using structure. | **12** | **L3** | **CO4** |

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CBCS SCHEME

**BPWSK106/206**

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**Question Paper Version : A**

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Professional Writing Skills in English

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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**Choose the appropriate verb that agrees with the subject :**

**1.** It was found that some students ____ not attending their classes.
a) was b) were c) is d) never

**2.** Neither the teacher nor the student ____ how to behave.
a) know b) knows c) were d) had known

**3.** The horse and the carriage _____ ready.
a) have b) been c) are d) is

**4.** Besides the Minister, the bodyguard too ____ killed.
a) were b) was c) been d) had

**5.** The news ____ rather depressing
a) has b) being c) been d) was

**6.** Someone ____ left their luggage outside.
a) has b) have c) is d) was

**7.** The CEO as well as his secretary ____ reaching here in an hour.
a) are b) is c) was d) None of these

**8.** At the last moment there ____ a change in the venue of the event.
a) is b) are c) was d) were

**9.** What actually scared as ____ the fact that there was no one around to help us?
a) were b) may c) was d) is



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**10.** In addition to the mistakes the report also _____ several anomalies.
a) has b) have c) had d) is

**Choose that confirms with correct noun – pronoun agreement :**

**11.** The Committee settled the matter without getting up from ____ seats.
a) his b) her c) their d) its

**12.** I am a fool ____
a) am I not b) aren't I c) Is it not d) is it

**13.** The Jury were at sixes and sevens _____ could not decide a thing.
a) It b) their c) they d) None of these

**14.** One of the girls could not mark ____ attendance.
a) their b) theirs c) her d) its

**15.** A group of scientists is working on this project. Each of them ____ in their twenties.
a) is b) are c) were d) None of these

**Give the correct analogies for the following :**

**16.** Equality : Democracy : : one ruler : ____
a) Kingdom b) Republic c) Monarchy d) Dictatorship

**17.** Write : Scribble : : _____ speak.
a) Stammer b) Walk c) Dance d) Play

**18.** Plane : Hangar : : Surf board : _____
a) Port b) Beach c) Aerodrome d) Harbour

**19.** Eye : Conjunctivitis : : Teeth : _____
a) Eczema b) Glaucoma c) Trachoma d) Plague

**20.** Kick : Soccer : : _____ : basket ball.
a) put b) drop c) shot d) dribble

**Give the meaning of the following idioms :**

**21.** Under the weather
a) brittle b) under the bed c) unwell d) dirty

**22.** Butter fingers
a) clumsly b) clean c) soft d) rough

**23.** Heard it on the grapevine means
a) source b) rumour c) bang on d) to convince

**24.** Tick all boxes
a) waiting b) to satisfy
c) damage beyond repair d) anxious



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**25.** Every cloud has a silver lining means
a) good things comes after bad
b) do something senseless
c) to ignore
d) being rich

**Give the synonym for the following :**

**26.** Abrograte
a) to give up b) to run c) to abolish d) to create

**27.** Destitute
a) poor b) rich c) speed d) fantastic

**28.** Absolute
a) Divide b) Complete c) Small d) less

**Give the Antonym for the following :**

**29.** Civilized
a) Bright b) Artificial c) Argue d) Barbarous

**30.** Brave
a) coward b) give c) gain d) acheive

**Answer the following :**

**31.** Which of these must be avoided in a speech?
a) Clarity b) Pauses c) Rudeness d) Confidence

**32.** Which of these is not a feature of a paragraph?
a) Length b) Unity c) Incoherence d) Correctness

**33.** The average length of sentence in a paragraph should be
a) 25 to 30 words b) 15 to 20 words c) 5 to 10 words d) No limit

**34.** Resume is called as curriculum vitae in ___
a) N. America b) India c) France d) Italy

**35.** In technical writing, starting point of a resume must have
a) Qualification
b) Details of education
c) Name and address
d) Career objective

**36.** Which of these is not a type of essay?
a) Narrative b) Descriptive c) Argumentative d) Personal

**37.** Indirect speed is also called as ____
a) Simple speech b) Principal speech c) Reported speech d) Quoted speech

**38.** Among the following what is desired from the candidate appearing at job interview.
a) Effective display of body language
b) Fluency in communication
c) Maturity
d) All of these

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**39. Give the correctly spelt word in the following :**

a) Aparent  b) Aparrent  c) Apparant  d) Apparent

**40. Give the correct spelling of :**

a) Acknowledgment  b) Acknowledgement
c) Acknowldgement  d) Acknowleedgement

**41. Give the correct sentence :**

a) Although he was hurt, but he continued to walk
b) Although he was hurt, he continued to walk
c) He was hurt, he continued to walk
d) Although he continued to walk, he was hurt

**Choose the correct article in the sentence given below :**

**42.** Oranges are grown in Nagpur.

a) A  b) no article  c) an  d) The

**Choose article if required in the sentence given below :**

**43.** I saw ____ bird sitting on the tree.

a) an  b) a  c) the  d) no article

**44. Correct the sentence which confirms to standard English** :

a) Anu & Me went to college  b) Anu & I went to college
c) I & Anu went to college  d) Anu & I wents to college

**Choose the correct answer :**

**45.** He crossed the broken bridge _____ warning.

a) Inspite of  b) Inspite off  c) about  d) on

**46. Choose the correct answer** :

a) She is senior than me  b) She is senior of me
c) She is senior to me  d) She is senior then me

**Choose the correct answer in the following and fill in the blanks in the paragraph** :

If Children are ____ (47) ____ for the good work they do, it creates on them a very good impact , Appreciation in a way is a ____ (48) ____ for a sense of ____(49)____ which ____(50) ____ into our behavior since childhood.

Options :

**47.** a) Complimented  b) Complemented  c) Completed  d) Contrasted

**48.** a) Pategryics  b) panoroma  c) panacea  d) punishment

**49.** a) inadequacy  b) ingratitude  c) ordinariness  d) disjuncture

**50.** a) induce  b) creeps  c) fractify  d) advance

* * * * *



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**CBCS SCHEME**

USN | | | | | | | | | | |

**BRMK557**

# Fifth Semester B.E./B.Tech. Degree Examination, June/July 2026

## Research Methodology and IPR

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M: Marks, L: Bloom's level, C: Course outcomes.***

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11-06-2026 01:31:35pm BL - BL - BL - BL - BL

| | | | M | L | C |
|---|---|---|---|---|---|
| | | **Module – 1** | | | |
| **Q.1** | **a.** | Define Engineering research and list its aims and objectives. | **10** | **L1** | **CO1** |
| | **b.** | Explain briefly about research cycle and verify with the research flow diagram. | **10** | **L1** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | Enlist and explain different types of engineering research. | **10** | **L1** | **CO1** |
| | **b.** | What are the key ethical issues related to authorship? Explain any one. | **10** | **L1** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain about the importance of Literature review and Technical reading. | **10** | **L2** | **CO2** |
| | **b.** | Explain various steps involved in critical and creative reading. | **10** | **L2** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | Explain how knowledge flows through a citation network. Assign a flow diagram. | **10** | **L2** | **CO2** |
| | **b.** | How does new and existing knowledge can contribute to the research process? Explain relevant points. | **10** | **L3** | **CO2** |
| | | **Module – 3** | | | |
| **Q.5** | **a.** | Describe Intellectual Property Rights and list its types. | **10** | **L2** | **CO3** |
| | **b.** | Explain about the key aspect of Patent Law. | **10** | **L2** | **CO3** |

| | | | | | |
|---|---|---|---|---|---|
| | | **OR** | | | |
| **Q.6** | **a.** | Define the term patent and what conditions must be met for obtaining patent protection. | **10** | **L2** | **CO3** |
| | **b.** | Brief about the patent procedure in India. | **10** | **L2** | **CO4** |
| | | **Module – 4** | | | |
| **Q.7** | **a.** | Explain the process of copyright registration. What are the benefits for the copyright holders? | **10** | **L2** | **CO4** |
| | **b.** | What is trademark? Explain the steps involved in trademark registration using flow chart. | **10** | **L2** | **CO4** |
| | | **OR** | | | |
| **Q.8** | **a.** | What are the Roles and functions of the copyright board and copyright society in administering copyright law and regulations? | **10** | **L3** | **CO4** |
| | **b.** | Copyright infringement is a criminal and cognizable offence. Explain How and Why? | **10** | **L3** | **CO4** |
| | | **Module – 5** | | | |
| **Q.9** | **a.** | Explain the Classification of Industrial Designs and Design registration trends in India. | **10** | **L3** | **CO5** |
| | **b.** | Define Geographical Indications (GI) with an example. What are the rights granted to GI holders? | **10** | **L3** | **CO5** |
| | | **OR** | | | |
| **Q.10** | **a.** | Describe the overall ecosystem and significance of Geographical Indications in India. | **10** | **L2** | **CO5** |
| | **b.** | What are the rights of the Owner of designs? Explain. | **10** | **L1** | **CO5** |

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CBCS SCHEME

BSFHK158/258

USN

Question Paper Version : A

First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

# Scientific Foundation of Health

Time: 1 hr. Max. Marks: 50

## INSTRUCTIONS TO THE CANDIDATES

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1. Which of the following diseases is also called as "Salmonella enteric serotype Typhi"?
a) Typhoid b) Malaria c) Diarrhea d) Yellow fever

2. Which of the following is the main cause for transmission of the Hepatitis virus?
a) The bite of a mosquito b) Sharing drug needles
c) Drinking contaminated water d) All of these

3. Which one of the following is not a bacterial diseases :
a) AIDS b) Dengue c) Mealses d) All of these

4. Which of the following factor is necessary for healthy person?
a) Vaccination b) Balanced diet c) Personal hygiene d) All of these

5. The World Health day is celebrated on
a) $1^{st}$ March b) $7^{th}$ April c) $6^{th}$ October d) $10^{th}$ December

6. In 2015, the global prevalence of HIV infection was
a) 0.2 % b) 0.4 % c) 0.6 % d) 0.8 %

7. The WHO report in 2013 estimated that tobacco will kill as many as _____ people this century if the WHO Frame work convention on Tobacco control is not implemented rapidly.
a) 2 billion b) 1 billion c) half billion d) quarter billion

8. Who proposed the biopsychosocial model?
a) Freud b) Sontag c) Engel d) None of these



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**9.** Obesity is caused by an increase in
a) adiposity b) epidosity c) ediposity d) None of these

**10.** Which of the following food items is the best source of plant proteins?
a) Milk b) Egg c) Legumes d) Cheese

**11.** How many minutes should an average person walk a day?
a) 30 minutes b) 40 minutes c) 20 minutes d) 60 minutes

**12.** Which Vitamin is good for eyes?
a) Vitamin D b) Vitamin K c) Vitamin A d) Vitamin C

**13.** What is the recommended daily intake water?
a) 0.5 liters b) 1 liter c) 2 liters d) 3 liters

**14.** What are the general sleep requirements for an adult?
a) 8 to 12 hours b) 12 to 14 hours c) 7 to 9 hours d) 10 to 12 hours

**15.** Why do people have to use both salts?
a) To heal wound b) To relax sleep better
c) To soften skin d) None of these

**16.** What are usually recommended as self care tip for depression?
a) Sleeping for less than 7 hours b) Active life style
c) Eating 100 extra calories d) None of these

**17.** What is BMI?
a) Body Mass Index b) Body Muscle Index
c) Brain Mind Index d) None of these

**18.** An Apple a day
a) Keeps a doctor away b) Keeps all the troubles away
c) Keeps you whole day awake d) None of these

**19.** How often you must have a routine body checkup?
a) Once in 10 years b) Once a year
c) Once in 5 years d) Once in a month

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a) Not considered food b) Considered as food
c) Healthy food d) None of these

**21.** Communication is a part of ___ skill.
a) Soft b) Rough c) Hard d) Technical

**22.** Types of Addictive behaviour
a) Vedio Gaming b) All c) Alcoholism d) Drug abuse

**23.** Which of these should not be avoided for effective communication?
a) Noise b) Planning c) Semantic problem d) None of these



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**24.** Which of these is the external sounds present in the channels of communication.
a) Noise b) Cultural barrier c) Planning d) None of these

**25.** ____ are the problems arising from expression.
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**26.** In which of these problems, is the actual message lost in the abundance of transmitted information?
a) Selecting perception b) Over communication
c) Under communication d) None of these

**27.** _____ means to impart understanding of message.
a) Encoding b) Receiver c) Decoding d) Feedback

**28.** _____ is the first enemy of Communication.
a) Noise b) Clarity c) Politeness d) Completeness

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**30.** Which of these is not a commandment of effective communication?
a) Clarity in Language b) Listen poorly
c) Adequate medium d) None of these

**31.** An individual who knowingly tries to protect an addict from natural consequences of his or her destructive behaviour is
a) Enabling b) Intervening c) Encouraging d) Sheltering

**32.** Excessive use of any drug constitutes
a) drug abuse b) drug addiction c) drug misuse d) None of these

**33.** Charlotte, a college student, is a habitual drinker. She has become preoccupied with obtaining alcohol and obsessed with her need to drink. Charlotte is exhibiting
a) Lack of responsibility b) Tolerance
c) Denial d) Compulsion

**34.** Chemicals are rarely messages from one nerve cell to another or to other cells are
a) Chemo receptors b) Enzymes
c) Neuro transmitters d) Synapses

**35.** The psychoactive drug mescaline is obtained from which plant?
a) Peyote cactus b) Marijuana c) Mushroom d) Poppy

**36.** Which of the following is classified as a stimulant?
a) Methamphetamine b) Marijuana c) Alcohol d) LSD

**37.** Mental health issues
a) Anxiety b) Depression c) Schizophrenias d) All of these



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**38.** Social health issues
a) Stigma
b) Disrupted families
c) Anti social behaviour
d) All of these

**39.** Which of the following is NOT characteristic of addiction?
a) Negative consequences
b) Loss of control
c) Habitual Behaviour
d) All of these

**40.** Which term describes the use of drug for a purpose for which it was not intended?
a) Abuse
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**41.** Alzheimer's and Osteoporosis are examples of
a) Communicable diseases
b) Degenerative diseases
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**42.** Excessive bleeding during an injury is a deficiency of
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b) Vitamin B
c) Vitamin K
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**44.** Which of the following is also known as Ascorbic acid?
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b) Vitamin B
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**45.** The deficiency diseases can be prevented by
a) Prolonged cooking
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c) Eating only vegetables
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**46.** AIDS, Common cold , dengue fever and influenza are examples of
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CBCS SCHEME

BSFHK158/258

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Question Paper Version : B

First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

# Scientific Foundation of Health

Time: 1 hr. Max. Marks: 50

## INSTRUCTIONS TO THE CANDIDATES

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CBCS SCHEME

**BSFHK158/258**

USN | | | | | | | | | | |

**Question Paper Version : C**

**First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026**

# Scientific Foundation of Health

Time: 1 hr. Max. Marks: 50

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**45.** The World Health day is celebrated on
a) $1^{st}$ March b) $7^{th}$ April c) $6^{th}$ October d) $10^{th}$ December

**46.** In 2015, the global prevalence of HIV infection was
a) 0.2 % b) 0.4 % c) 0.6 % d) 0.8 %

**47.** The WHO report in 2013 estimated that tobacco will kill as many as _____ people this century if the WHO Frame work convention on Tobacco control is not implemented rapidly.
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**48.** Who proposed the biopsychosocial model?
a) Freud b) Sontag c) Engel d) None of these

**49.** Obesity is caused by an increase in
a) adiposity b) epidosity c) ediposity d) None of these

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a) Milk b) Egg c) Legumes d) Cheese

* * * * *



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CBCS SCHEME

**BSFHK158/258**

USN | | | | | | | | | | |

**Question Paper Version : D**

**First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026**

# Scientific Foundation of Health

Time: 1 hr. Max. Marks: 50

## INSTRUCTIONS TO THE CANDIDATES

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1. Alzheimer's and Osteoporosis are examples of
   a) Communicable diseases b) Degenerative diseases
   c) None communicable diseases d) None of these

2. Excessive bleeding during an injury is a deficiency of
   a) Vitamin A b) Vitamin B c) Vitamin K d) Vitamin E

3. Cystic Fibrosis and Haemophilia are examples of
   a) Hereditary diseases b) Degenerative diseases
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4. Which of the following is also known as Ascorbic acid?
   a) Vitamin A b) Vitamin B c) Vitamin C d) Vitamin E

5. The deficiency diseases can be prevented by
   a) Prolonged cooking b) Eating only fruits
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6. AIDS, Common cold , dengue fever and influenza are examples of
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16. Which of the following is classified as a stimulant?
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17. Mental health issues
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18. Social health issues
a) Stigma
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**23.** What is the recommended daily intake water?
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* * * * *



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CBCS SCHEME

BSFHK158/258

USN | | | | | | | | | | |

Question Paper Version : A

**First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026**

# Scientific Foundation of Health

Time: 1 hr. Max. Marks: 50

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CBCS SCHEME

BSFHK158/258

USN | | | | | | | | | | |

Question Paper Version : B

**First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026**

# Scientific Foundation of Health

Time: 1 hr. Max. Marks: 50

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CBCS SCHEME

**BSFHK158/258**

USN | | | | | | | | | | |

**Question Paper Version : C**

**First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026**

# Scientific Foundation of Health

Time: 1 hr. Max. Marks: 50

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a) Vitamin A
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14. Which of the following is also known as Ascorbic acid?
a) Vitamin A
b) Vitamin B
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15. The deficiency diseases can be prevented by
a) Prolonged cooking
b) Eating only fruits
c) Eating only vegetables
d) Eating food with good nutritional value

16. AIDS, Common cold , dengue fever and influenza are examples of
a) Deficiency diseases
b) Infectious diseases
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d) Non – infectious diseases

17. Which of the following is not an infectious diseases
a) Dengue
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d) Respirative system

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a) Subunit vaccine
b) Killer vaccine
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21. An individual who knowingly tries to protect an addict from natural consequences of his or her destructive behaviour is
a) Enabling
b) Intervening
c) Encouraging
d) Sheltering

22. Excessive use of any drug constitutes
a) drug abuse
b) drug addiction
c) drug misuse
d) None of these



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**23.** Charlotte, a college student, is a habitual drinker. She has become preoccupied with obtaining alcohol and obsessed with her need to drink. Charlotte is exhibiting
a) Lack of responsibility
b) Tolerance
c) Denial
d) Compulsion

**24.** Chemicals are rarely messages from one nerve cell to another or to other cells are
a) Chemo receptors
b) Enzymes
c) Neuro transmitters
d) Synapses

**25.** The psychoactive drug mescaline is obtained from which plant?
a) Peyote cactus
b) Marijuana
c) Mushroom
d) Poppy

**26.** Which of the following is classified as a stimulant?
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b) Marijuana
c) Alcohol
d) LSD

**27.** Mental health issues
a) Anxiety
b) Depression
c) Schizophrenias
d) All of these

**28.** Social health issues
a) Stigma
b) Disrupted families
c) Anti social behaviour
d) All of these

**29.** Which of the following is NOT characteristic of addiction?
a) Negative consequences
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d) All of these

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**33.** What is the recommended daily intake water?
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b) To relax sleep better
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b) Active life style
c) Eating 100 extra calories
d) None of these



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**37.** What is BMI?
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a) Keeps a doctor away
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**39.** How often you must have a routine body checkup?
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**40.** Pica is eating disorder that involves eating things that are
a) Not considered food
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a) 1st March
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* * * * *



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CBCS SCHEME

**BSFHK158/258**

USN

**Question Paper Version : D**

**First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026**

# Scientific Foundation of Health

Time: 1 hr. Max. Marks: 50

## INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
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a) adiposity b) epidosity c) ediposity d) None of these

**40.** Which of the following food items is the best source of plant proteins?
a) Milk b) Egg c) Legumes d) Cheese

**41.** Communication is a part of ____ skill.
a) Soft b) Rough c) Hard d) Technical

**42.** Types of Addictive behaviour
a) Vedio Gaming b) All c) Alcoholism d) Drug abuse

**43.** Which of these should not be avoided for effective communication?
a) Noise b) Planning c) Semantic problem d) None of these

**44.** Which of these is the external sounds present in the channels of communication.
a) Noise b) Cultural barrier c) Planning d) None of these

**45.** ____ are the problems arising from expression.
a) Cultural barrier b) Semantic problem
c) Wrong assumption d) Selecting perception

**46.** In which of these problems, is the actual message lost in the abundance of transmitted information?
a) Selecting perception b) Over communication
c) Under communication d) None of these

**47.** ______ means to impart understanding of message.
a) Encoding b) Receiver c) Decoding d) Feedback

**48.** _____ is the first enemy of Communication.
a) Noise b) Clarity c) Politeness d) Completeness

**49.** Which of these must be avoided for effective communication?
a) Sharing of activity b) Listening
c) Ambiguity d) Politeness

**50.** Which of these is not a commandment of effective communication?
a) Clarity in Language b) Listen poorly
c) Adequate medium d) None of these

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# CBCS SCHEME

**BUHK408/22BD47**

USN | | | | | | | | | | |

**Question Paper Version : A**

**Fourth Semester B.E./B.Tech./B.Design Degree Examination, June/July 2026**

## Universal Human Values

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
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**1.** Values are the outcome of Realization and _____ which are always definite.
a) Behavior b) Work c) Understanding d) Beliefs

**2.** It is the first level of living.
a) Individual b) Family c) Society d) Nature

**3.** Expression of thoughts in the form of ____
a) Behavior b) Work c) Realization d) Behavior and work

**4.** Universal , rational and verifiable are _____ of value education.
a) Needs b) Basic guidelines c) Outcomes d) None of these

**5.** Value education leads a human being to _____
a) Harmony b) Conflicts c) Confusion d) All of these

**6.** To fulfill human aspirations _____ are necessary.
a) Both values and skills b) Values
c) Skills d) None of these

**7.** Basic unit of human interaction is _____
a) Family b) Society c) Group d) None of these

**8.** Which statement is not correct about value education?
a) It is in the form of Do's and Don'ts b) It is naturally acceptable
c) It can be verified d) It is universal

**9.** To be wealthy is _____condition in the modern world to be happy.
a) The most important b) Not essential
c) Fake d) True



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10. For prosperity, which of the following is not required.
    a) Appropriate assessment of the physical needs
    b) Ensuring availability / production of more than required physical facilities
    c) Knowing the need for physical facilities as limited
    d) Giving first priority to physical facilities in life

11. Human being is the co-existence of ____
    a) Wealthy & Prosperity  b) Suvidha & Body
    c) Self (I) & Physical facilities  d) Self (I) & Body

12. The system of the body, works in a _____ way.
    a) Disturbed  b) Uncertain  c) Self organized  d) All of these

13. Clothing, nourishment etc, are the needs of ____
    a) Self (I)  b) Body  c) Both self (I) & Body  d) None of these

14. The power/force for the activity of analyzing is ____
    a) Desire  b) Expectation  c) Thought  d) Realisation

15. The behavior depends upon ____
    a) Feelings  b) Desire, thought & Expectation
    c) Right understanding  d) All of these

16. _____ is stimulus, which our sensory organs makes us feels.
    a) Feelings  b) Sensations  c) Knowledge  d) Happiness

17. We can have ____ through the process of realization.
    a) Right understanding  b) Pre – conditioning
    c) Sensation  d) None of these

18. _____ helps in balancing / regulating the breathing of the body.
    a) Medicine  b) Labor  c) Aasan  d) Pranayam

19. The feeling of responsibility to ensure health of body is related with ____
    a) Proper Upkeep  b) Self Regulation  c) Guidance  d) Affection

20. What is not the indicator of good health in Self and Body?
    a) Feeling of happiness & Prosperity
    b) Proper functioning of organ systems
    c) Feeling of self – regulation towards the body
    d) Feeling of jealously, competition , anger for others

21. ____ is the basic unit of human interaction.
    a) Individual  b) Family  c) Society  d) Nature

22. The fulfillment & evaluation of feelings lead to mutual ____ in family.
    a) Happiness  b) Prosperity  c) Both (a) & (b)  d) Neither (a) nor (b)

23. The feeling of ____ is the foundation of undivided society.
    a) Trust  b) Love  c) Hate  d) Reverence



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**24.** Doubt on ____ is a major reason for problems in relationship.
a) Purpose b) Person c) Intention d) Competence

**25.** Differentiation or Discrimination in relationship is a kind of ____
a) Respect b) Attention c) Disrespect d) Justice

**26.** If you have trust on intention of the other, then you will feel _____
a) Opposed to other b) Related to other
c) Sometimes opposed and sometimes related d) None of these

**27.** The intention of every human being is to make the other _____
a) Rich & Resourceful b) Happy & Divine
c) Happy & Prosperous d) All of these

**28.** Society is an extension of ____
a) Individual b) Family c) Nature d) All of these

**29.** The process of education and right living leads to _____ in the individual.
a) Right Understanding b) Confusions
c) Doubts d) None of these

**30.** _____ on intention is the starting point for mutual development.
a) Trust b) Belief c) Doubt d) None of these

**31.** Human beings are dependent on the ____ for soil, minerals and metals.
a) Material order b) Bio order c) Animal order d) None of these

**32.** The natural characteristics (Svabhav) of self of human order is ____
a) Perseverance , Bravery & Generosity b) Cruelty / Non – Cruelty
c) Will to live with happiness d) Nurture / Worsen

**33.** The basic activities of plant order is ___
a) Composition / Decomposition b) Recognition / Fulfillment
c) Knowing / Assuming d) Selection / Tasting

**34.** The cell belongs to ____
a) Material order b) Plant order c) Animal order d) Human order

**35.** The value or participation of different orders in existence is also referred to as their ____
a) Natural characteristics b) Innateness
c) Activity d) Conformance

**36.** The continuity of a plant species is maintained in nature by _____ method.
a) Constitution Conformance b) Seed Conformance
c) Breed Conformance d) Right value / Sanskaar

**37.** Our natural acceptance is to live in ____ with nature.
a) Harmony b) Struggle for survival
c) Opposition d) None of these



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**38.** Nature is _____ in size and space is ____
a) Limited , Unlimited
b) Unlimited , Limited
c) Limited , Limited
d) Unlimited, Unlimited

**39.** Space is constant or _____ energy.
a) Equilibrium
b) Variable
c) Unlimited
d) Limited

**40.** Sah – astitva means ______
a) Co - existence
b) Co – operation
c) Co – option
d) Corporate Identity

**41.** Ethical human conduct means
a) Uncertainty in Behaviour
b) Indefinite conduct
c) Inhuman Behaviour
d) Definite Human Conduct

**42.** Harmony at the level of self is expressed as ____
a) Happiness
b) Unhappiness
c) Health in Body
d) Prosperity

**43.** Happiness, Peace , Satisfaction and Bliss are considered as _____
a) Values in self
b) Values in Human – Human Relationship
c) Values of Universal Human Order
d) Values of Human being in the Interaction with the Rest of Nature

**44.** Established value of compliance is ____
a) Affection
b) Respect
c) Reverence
d) Glory

**45.** Generosity is the expressed value of _____
a) Trust
b) Affection
c) Gratitude
d) Care

**46.** Gratitude is the established value of ____
a) Ease
b) Self Restraint
c) Generosity
d) Commitment

**47.** Kindness (Daya) is the value at the level of _____
a) Individual / Self
b) Family / Human – Human Relationship
c) Society / Universal Human Order
d) Nature / Interaction with Rest of the Nature

**48.** Professional competence with ethical Human conduct is ____
a) Profession
b) Professional ethics
c) Morals
d) Values

**49.** Ethical conduct of profession means ____
a) Right utilization of one's professional skills
b) Fulfillment of comprehensive Human goals
c) Meaningfully participate in the larger order
d) All of these

**50.** What could be the entry point to ensure humanistic tradition?
a) Human education
b) Human conduct
c) Human constitution
d) Universal Human order

* * * * *

**CBCS SCHEME**

**BUHK408/22BD47**

USN | | | | | | | | | |

**Question Paper Version : B**

# Fourth Semester B.E./B.Tech./B.Design Degree Examination, June/July 2026

## Universal Human Values

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
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b) Work
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b) Family / Human – Human Relationship
c) Society / Universal Human Order
d) Nature / Interaction with Rest of the Nature

**28.** Professional competence with ethical Human conduct is ____
a) Profession b) Professional ethics c) Morals d) Values

**29.** Ethical conduct of profession means ____
a) Right utilization of one's professional skills
b) Fulfillment of comprehensive Human goals
c) Meaningfully participate in the larger order
d) All of these

**30.** What could be the entry point to ensure humanistic tradition?
a) Human education b) Human conduct
c) Human constitution d) Universal Human order

**31.** ____ is the basic unit of human interaction.
a) Individual b) Family c) Society d) Nature

**32.** The fulfillment & evaluation of feelings lead to mutual ____ in family.
a) Happiness b) Prosperity c) Both (a) & (b) d) Neither (a) nor (b)

**33.** The feeling of ____ is the foundation of undivided society.
a) Trust b) Love c) Hate d) Reverence

**34.** Doubt on ____ is a major reason for problems in relationship.
a) Purpose b) Person c) Intention d) Competence

**35.** Differentiation or Discrimination in relationship is a kind of ____
a) Respect b) Attention c) Disrespect d) Justice

**36.** If you have trust on intention of the other, then you will feel _____
a) Opposed to other b) Related to other
c) Sometimes opposed and sometimes related d) None of these



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**37.** The intention of every human being is to make the other _____
a) Rich & Resourceful
b) Happy & Divine
c) Happy & Prosperous
d) All of these

**38.** Society is an extension of ____
a) Individual
b) Family
c) Nature
d) All of these

**39.** The process of education and right living leads to _____ in the individual.
a) Right Understanding
b) Confusions
c) Doubts
d) None of these

**40.** _____ on intention is the starting point for mutual development.
a) Trust
b) Belief
c) Doubt
d) None of these

**41.** Human being is the co-existence of ____
a) Wealthy & Prosperity
b) Suvidha & Body
c) Self (I) & Physical facilities
d) Self (I) & Body

**42.** The system of the body, works in a _____ way.
a) Disturbed
b) Uncertain
c) Self organized
d) All of these

**43.** Clothing, nourishment etc, are the needs of ____
a) Self (I)
b) Body
c) Both self (I) & Body
d) None of these

**44.** The power/force for the activity of analyzing is ____
a) Desire
b) Expectation
c) Thought
d) Realisation

**45.** The behavior depends upon ____
a) Feelings
b) Desire, thought & Expectation
c) Right understanding
d) All of these

**46.** _____ is stimulus, which our sensory organs makes us feels.
a) Feelings
b) Sensations
c) Knowledge
d) Happiness

**47.** We can have ____ through the process of realization.
a) Right understanding
b) Pre – conditioning
c) Sensation
d) None of these

**48.** _____ helps in balancing / regulating the breathing of the body.
a) Medicine
b) Labor
c) Aasan
d) Pranayam

**49.** The feeling of responsibility to ensure health of body is related with ____
a) Proper Upkeep
b) Self Regulation
c) Guidance
d) Affection

**50.** What is not the indicator of good health in Self and Body?
a) Feeling of happiness & Prosperity
b) Proper functioning of organ systems
c) Feeling of self – regulation towards the body
d) Feeling of jealously, competition , anger for others

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CBCS SCHEME

**BUHK408/22BD47**

USN | | | | | | | | | | |

**Question Paper Version : C**

## Fourth Semester B.E./B.Tech./B.Design Degree Examination, June/July 2026

## Universal Human Values

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

---

**1.** ____ is the basic unit of human interaction.
a) Individual b) Family c) Society d) Nature

**2.** The fulfillment & evaluation of feelings lead to mutual ____ in family.
a) Happiness b) Prosperity c) Both (a) & (b) d) Neither (a) nor (b)

**3.** The feeling of ____ is the foundation of undivided society.
a) Trust b) Love c) Hate d) Reverence

**4.** Doubt on ____ is a major reason for problems in relationship.
a) Purpose b) Person c) Intention d) Competence

**5.** Differentiation or Discrimination in relationship is a kind of ____
a) Respect b) Attention c) Disrespect d) Justice

**6.** If you have trust on intention of the other, then you will feel _____
a) Opposed to other b) Related to other
c) Sometimes opposed and sometimes related d) None of these

**7.** The intention of every human being is to make the other _____
a) Rich & Resourceful b) Happy & Divine
c) Happy & Prosperous d) All of these

**8.** Society is an extension of ____
a) Individual b) Family c) Nature d) All of these

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**9.** The process of education and right living leads to _____ in the individual.
a) Right Understanding b) Confusions
c) Doubts d) None of these

**10.** _____ on intention is the starting point for mutual development.
a) Trust b) Belief c) Doubt d) None of these

**11.** Ethical human conduct means
a) Uncertainty in Behaviour b) Indefinite conduct
c) Inhuman Behaviour d) Definite Human Conduct

**12.** Harmony at the level of self is expressed as ____
a) Happiness b) Unhappiness c) Health in Body d) Prosperity

**13.** Happiness, Peace , Satisfaction and Bliss are considered as _____
a) Values in self
b) Values in Human – Human Relationship
c) Values of Universal Human Order
d) Values of Human being in the Interaction with the Rest of Nature

**14.** Established value of compliance is ____
a) Affection b) Respect c) Reverence d) Glory

**15.** Generosity is the expressed value of _____
a) Trust b) Affection c) Gratitude d) Care

**16.** Gratitude is the established value of ____
a) Ease b) Self Restraint c) Generosity d) Commitment

**17.** Kindness (Daya) is the value at the level of _____
a) Individual / Self
b) Family / Human – Human Relationship
c) Society / Universal Human Order
d) Nature / Interaction with Rest of the Nature

**18.** Professional competence with ethical Human conduct is ____
a) Profession b) Professional ethics c) Morals d) Values

**19.** Ethical conduct of profession means ____
a) Right utilization of one's professional skills
b) Fulfillment of comprehensive Human goals
c) Meaningfully participate in the larger order
d) All of these

**20.** What could be the entry point to ensure humanistic tradition?
a) Human education b) Human conduct
c) Human constitution d) Universal Human order

**21.** Human beings are dependent on the ____ for soil, minerals and metals.
a) Material order b) Bio order c) Animal order d) None of these

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**22.** The natural characteristics (Svabhav) of self of human order is ____
a) Perseverance , Bravery & Generosity b) Cruelty / Non – Cruelty
c) Will to live with happiness d) Nurture / Worsen

**23.** The basic activities of plant order is ___
a) Composition / Decomposition b) Recognition / Fulfillment
c) Knowing / Assuming d) Selection / Tasting

**24.** The cell belongs to ____
a) Material order b) Plant order c) Animal order d) Human order

**25.** The value or participation of different orders in existence is also referred to as their ____
a) Natural characteristics b) Innateness
c) Activity d) Conformance

**26.** The continuity of a plant species is maintained in nature by _____ method.
a) Constitution Conformance b) Seed Conformance
c) Breed Conformance d) Right value / Sanskaar

**27.** Our natural acceptance is to live in ____ with nature.
a) Harmony b) Struggle for survival
c) Opposition d) None of these

**28.** Nature is _____ in size and space is ____
a) Limited , Unlimited b) Unlimited , Limited
c) Limited , Limited d) Unlimited, Unlimited

**29.** Space is constant or _____ energy.
a) Equilibrium b) Variable c) Unlimited d) Limited

**30.** Sah – astitva means ______
a) Co - existence b) Co – operation c) Co – option d) Corporate Identity

**31.** Human being is the co-existence of ____
a) Wealthy & Prosperity b) Suvidha & Body
c) Self (I) & Physical facilities d) Self (I) & Body

**32.** The system of the body, works in a _____ way.
a) Disturbed b) Uncertain c) Self organized d) All of these

**33.** Clothing, nourishment etc, are the needs of ____
a) Self (I) b) Body c) Both self (I) & Body d) None of these

**34.** The power/force for the activity of analyzing is ____
a) Desire b) Expectation c) Thought d) Realisation

**35.** The behavior depends upon ____
a) Feelings b) Desire, thought & Expectation
c) Right understanding d) All of these

**36.** _____ is stimulus, which our sensory organs makes us feels.
a) Feelings b) Sensations c) Knowledge d) Happiness



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**37.** We can have ____ through the process of realization.
a) Right understanding
b) Pre – conditioning
c) Sensation
d) None of these

**38.** _____ helps in balancing / regulating the breathing of the body.
a) Medicine
b) Labor
c) Aasan
d) Pranayam

**39.** The feeling of responsibility to ensure health of body is related with ____
a) Proper Upkeep
b) Self Regulation
c) Guidance
d) Affection

**40.** What is not the indicator of good health in Self and Body?
a) Feeling of happiness & Prosperity
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c) Feeling of self – regulation towards the body
d) Feeling of jealously, competition , anger for others

**41.** Values are the outcome of Realization and _____ which are always definite.
a) Behavior
b) Work
c) Understanding
d) Beliefs

**42.** It is the first level of living.
a) Individual
b) Family
c) Society
d) Nature

**43.** Expression of thoughts in the form of ____
a) Behavior
b) Work
c) Realization
d) Behavior and work

**44.** Universal , rational and verifiable are _____ of value education.
a) Needs
b) Basic guidelines
c) Outcomes
d) None of these

**45.** Value education leads a human being to ____
a) Harmony
b) Conflicts
c) Confusion
d) All of these

**46.** To fulfill human aspirations _____ are necessary.
a) Both values and skills
b) Values
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d) None of these

**47.** Basic unit of human interaction is _____
a) Family
b) Society
c) Group
d) None of these

**48.** Which statement is not correct about value education?
a) It is in the form of Do's and Don'ts
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c) It can be verified
d) It is universal

**49.** To be wealthy is _____condition in the modern world to be happy.
a) The most important
b) Not essential
c) Fake
d) True

**50.** For prosperity, which of the following is not required.
a) Appropriate assessment of the physical needs
b) Ensuring availability / production of more than required physical facilities
c) Knowing the need for physical facilities as limited
d) Giving first priority to physical facilities in life

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# CBCS SCHEME

**BUHK408/22BD47**

USN | | | | | | | | | | |

**Question Paper Version : D**

**Fourth Semester B.E./B.Tech./B.Design Degree Examination, June/July 2026**

## Universal Human Values

Time: 1 hr. Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
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3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
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**9.** Ethical conduct of profession means ____
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CBCS SCHEME

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1BCHES102/202

# First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026
## Applied Chemistry for Smart Systems (CSE)

Time: 3 hrs. Max. Marks: 100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***
***3. VTU Formula Hand Book is permitted.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| **Q.1** | **a.** | Describe the construction and working principle of a pentacene-based organic semiconductor memory chip. | **6** | **L2** | **CO1** |
| | **b.** | Explain the synthesis of $TiO_2$ nanomaterials by the sol-gel method for Resistive Random Access Memory (ReRAM) and draw the flow diagram neatly. | **7** | **L2** | **CO1** |
| | **c.** | Summarize the construction, working principle, and applications of AMOLED display technologies. | **7** | **L2** | **CO1** |
| | | **OR** | | | |
| **Q.2** | **a.** | What are liquid crystals? Classify liquid crystals and explain their characteristic properties and applications in display systems. | **6** | **L1** | **CO1** |
| | **b.** | Define organic semiconductors? Explain the types of organic semiconductors used in memory devices, with detailed discussion of n-type perfluoropentacene. | **7** | **L2** | **CO1** |
| | **c.** | Describe the construction and working principle of Quantum Light Emitting Diodes (QLEDs) with a neat diagram, and discuss their advantages and applications in modern display technology. | **7** | **L2** | **CO1** |
| | | **Module – 2** | | | |
| **Q.3** | **a.** | Explain the size-dependent properties of quantum dots with reference to quantum confinement effect, surface-to-volume ratio, and band gap variation. | **6** | **L2** | **CO2** |
| | **b.** | Describe the construction, working principle, and applications of Quantum Dot Sensitized Solar Cells (QDSSCs) with a neat labeled diagram. | **7** | **L2** | **CO2** |
| | **c.** | Explain the synthesis, properties, and advantages of Nylon 6,6 in 3D printing applications. | **7** | **L1** | **CO2** |
| | | **OR** | | | |
| **Q.4** | **a.** | In a sample of a polymer, 50 molecules have the molecular mass $2x10^3$ g/mol, 100 molecules have the molecular mass $4x10^5$ g/mol, 150 molecules have the molecular mass $8X10^7$ g/mol. Calculate the number average and weight average molecular mass of a polymer and also, find the Polymer dispersity index. | **6** | **L3** | **CO2** |
| | **b.** | Discuss the synthesis of Cadmium Selenide quantum dots by the wet chemical method and explain their applications. | **7** | **L2** | **CO2** |
| | **c.** | Discuss the synthesis of Polyaniline, its conduction mechanism, and engineering applications. | **7** | **L2** | **CO2** |



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| **Module – 3** | | | | | |
| **Q.5** | **a.** | What are concentration of cells? The EMF of cell Cd\|$CdSO_4$(x)\|\|Cd(0.0625M)\|Cd is 0.025V at $28^0$C. Find the value of x with cell reaction. | **06** | **L3** | **CO3** |
| | **b.** | Discuss the construction, working principle and application of sustainable energy devices in clean energy generation of Solid Oxide Fuel Cell? | **07** | **L2** | **CO3** |
| | **c.** | Explain the production of green hydrogen by photocatalytic water splitting using Titanium Dioxide and discuss its advantages. | **07** | **L2** | **CO3** |
| **OR** | | | | | |
| **Q.6** | **a.** | What are batteries? Classify batteries and explain the types of batteries with examples. | **6** | **L1** | **CO3** |
| | **b.** | Describe the construction, working principle, and applications of an ultra-small asymmetric supercapacitor used in IoT and wearable devices. | **7** | **L2** | **CO3** |
| | **c.** | Discuss the construction and working principle of a Sodium-ion battery and explain its applications in electric vehicles. | **7** | **L2** | **CO3** |
| **Module – 4** | | | | | |
| **Q.7** | **a.** | Write a note (i) transducers (ii) actuators, and (iii) sensors, with example. | **6** | **L1** | **CO4** |
| | **b.** | Describe the principle, construction, and working of electrochemical gas sensors and explain their application in the detection of NOx and SOx in air samples. | **7** | **L2** | **CO4** |
| | **c.** | What is CPR? A thick sheet of area 400 $inch^2$ is exposed to air near the ocean. After a 1.5 years it was found to experience a weight loss of 660 g due to corrosion, if the density of the steel is 7.85 $g/cm^3$. Calculate the corrosion penetration rate in mpy and mmpy (Given K = 534 in mpy and 87.6 mm/y). | **7** | **L3** | **CO4** |
| **OR** | | | | | |
| **Q.8** | **a.** | Describe the principle, construction, and working of a conductometric sensor, and explain its application in the estimation of acid mixtures. | **6** | **L2** | **CO4** |
| | **b.** | What are biosensors? Write the construction, working of biosensors used to detect glucose in blood. | **7** | **L2** | **CO4** |
| | **c.** | Define electrochemical theory of corrosion? Explain the differential metal corrosion and differential aeration corrosion with neat diagram. | **7** | **L2** | **CO4** |
| **Module – 5** | | | | | |
| **Q.9** | **a.** | Explain the sources and composition of e-waste, and discuss its effects on the environment and human health. | **6** | **L1** | **CO5** |
| | **b.** | Discuss the synthesis and properties of Alginate Hydrogel and its uses in Brain Computer Interfaces (BCIs) applications. | **7** | **L2** | **CO5** |
| | **c.** | Discuss the synthesis and properties of glycerol trioleate ester and its uses in IT infrastructure applications. | **7** | **L2** | **CO5** |
| **OR** | | | | | |
| **Q.10** | **a.** | Explain the synthesis, properties, and applications of Polylactic Acid as a biomaterial. | **6** | **L2** | **CO6** |
| | **b.** | Describe the green synthesis of Zinc Oxide nanoparticles and discuss their applications in magnetic RFID and Internet of Nano Things (IoNT) system. | **7** | **L2** | **CO6** |
| | **c.** | Discuss the extraction of gold from e-waste by the bioleaching method and explain its advantages over conventional methods. | **7** | **L2** | **CO6** |

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