CBCS SCHEME

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

BETCK205B

Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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.

		Module – 1	M	L	C
Q.1	a.	Explain types of cost effective construction material with their advantages.	10	L2	CO1
	b.	Explain the need for reuse and recycle of building materials along with its benefits.	10	L2	CO1
		OR			
Q.2	a.	Explain the various environmental issues causal due to quarrying of building materials.	10	L2	CO1
	b.	Define fiber reinforced polymer composites. Mention its advantages and applications.	10	L1	CO1
		Module – 2			
Q.3	a.	Mention the advantages and disadvantages of pre-engineered buildings.	10	L1	CO2
	b.	Explain the construction method involved in rat trap bond with neat sketch.	10	L2	CO2
		OR			
Q.4	a.	Explain Filler Slab and ferrocement based alternative roofing systems.	10	L2	CO2
	b.	Explain the objectives of Nirmithi Kendra briefly.	10	L2	CO2
		Module – 3			
Q.5	a.	Explain the five means of reducing carbon emissions.	10	L2	CO3
	b.	Describe the causes and effects of global warming.	10	L2	CO3
		OR			
Q.6	a.	Explain the environmental benefits of Green Buildings.	10	L2	CO3
	b.	Differentiate between Conventional Building and Green Buildings.	10	L2	CO3
		Module – 4			
Q.7	a.	Briefly explain the BREEAM assessment category.	10	L2	CO4
	b.	Explain the features and benefits of GRIHA.	10	L2	CO4

		OR			
Q.8	**a.**	Explain different characteristics of sustainable buildings.	**10**	**L2**	**CO4**
	b.	Describe objectives of green building design.	**10**	**L2**	**CO4**
		Module – 5			
Q.9	**a.**	Explain passive solar design basics for heating and cooling of buildings.	**10**	**L2**	**CO5**
	b.	Explain the advantages and disadvantages of solar powered building concepts.	**10**	**L2**	**CO5**
		OR			
Q.10	**a.**	Explain the process of management of solid waste.	**10**	**L2**	**CO5**
	b.	Explain the concept of green cover and build environment.	**10**	**L2**	**CO5**

* * * * *

CBCS SCHEME

BICOK107/207

USN | | | | | | | | | |

Question Paper Version : A

First/Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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. Constitution is important and necessary for a country to __________
   a) To establish foreign relations
   b) To define duties of the citizens only
   c) To ensure law and order only
   d) To lay down the fundamental principles and framework of governance

2. Key objective of the Indian Constitution is : ________
   a) Promote dictatorship
   b) Centralize power in monarchy
   c) Secure justice, liberty, equality and fraternity
   d) Establish a single religion

3. Chairman of the Indian Constitution formation assembly is : _______
   a) Mahatma Gandhi b) Jawaharlal Nehru
   c) B. R. Ambedkar d) Rajendra Prasad

4. One of the major challenges before the Constituent Assembly was : ________
   a) Imposing military rule
   b) Uniting princely states and ensuring representation of diverse groups
   c) Selecting a king
   d) Protecting British interests

5. The salient feature of the Indian Constitution is _______
   a) Unitary Constitution b) Presidential form of Government
   c) Rigid Constitution only d) Federal structure with a strong centre

6. _________ of the Indian Constitution contains the Fundamental Rights
a) Part I b) Part II
c) Part III d) Part IV

7. Preamble declares India to be a : _________
a) Democratic, Monarchial, Secular Republic
b) Sovereign, Socialist, Secular, Democratic Republic
c) Sovereign, Democratic, Capitalist Republic
d) Socialist, Federal, Unitary Republic

8. Key objective of the Preamble is ________
a) To create laws
b) To outline the duties of citizens
c) To state the aims and ideals of the Constitution
d) To provide penalties for crimes

9. Right to Freedom under Article 19 is subject to :
a) No restrictions
b) Unlimited individual choice
c) Reasonable restrictions imposed by the State
d) Foreign approval

10. Article ______ guarantees the Right to Constitutional Remedies
a) Article 19 b) Article 21
c) Article 32 d) Article 14

11. Directive Principles of State Policy are : _______
a) To impose taxes b) To guide the judiciary
c) To establish a welfare state d) To limit Fundamental Rights

12. Article _______ deals with the Fundamental Duties of Citizens
a) Article 32 b) Article 45
c) Article 51A d) Article 368

13. As on 2025, ______ Fundamental Duties are there in the Indian Constitution
a) 10 b) 11 c) 12 d) 9

14. Parliamentary system of India is adopted from ______ Constitution
a) USA b) France c) Britain d) Germany

15. The Constitutional Head of the Country is : ________
a) Prime Minister b) Speaker
c) President d) Chief Justice

16. The term of Vice President is : ________ years
a) 03 b) 04 c) 05 d) 06

17. Union Cabinet is composed of : _______
a) Only the Prime Minister b) President and Ministers
c) Prime Minister and Senior Ministers d) Prime Minister and Governors

18. Fundamental Duty emphasizes the spirit of scientific temper and reform to _____
a) To pay taxes
b) To develop scientific temper, humanism and the spirit of inquiry
c) To vote during MP's elections
d) To speak only in Hindi

19. Strength of the Karnataka Vidhana Sabha as on 2025 :
a) 144 b) 213 c) 224 d) 113

20. Which of the following statements is true about Rajya Sabha?
a) It is dissolved every 5 years b) It is a upper house
c) It has more powers than Lok Sabha d) It controls the Council of Ministers

21. _____ Presides over the joint sitting of both Houses of Parliament
a) Prime Minister b) Speaker of Lok Sabha
c) Vice President d) President of India

22. Highest judicial body in the Nation : _____
a) High Court b) Sessions Court
c) Supreme Court d) District Court

23. _____ Judges (including the Chief Justice) are there in the Supreme Court of India (as of 2025).
a) 25 b) 31 c) 34 d) 35

24. _____ Court deals with disputes between states or between the Centre and states of India
a) High Court b) Supreme Court
c) District Court d) Family Court

25. Who appoints the Chief Minister of a state?
a) Chief Minister b) Governor
c) Prime Minister d) Chief Justice of India

26. State Council of Minister/s is collectively responsible to the : _____
a) Governor b) President
c) Prime Minister d) Vidhan Sabha

27. In bicameral legislature, the upper house is called : _____
a) Vidhan Sabha b) Lok Sabha
c) Rajya Sabha d) Vidhan Parishad

28. _____ conducts elections to the Parliament and State Legislatures
a) President b) Governor
c) Supreme Court d) Election Commission of India

29. _____ amendment lowered the voting age from 21 to 18 years in India.
a) 42nd Amendment b) 61st Amendment
c) 44th Amendment d) 52nd Amendment

30. Under _______ the President declare a State emergency/President Rule
a) Article 352 b) Article 360
c) Article 356 d) Article 365

31. Constitution of India was adopted on : _______
a) 15th August 1947 b) 26th November 1949
c) 26th January 1950 d) 2nd October 1950

32. Father of the Indian Constitution is : ________
a) Jawaharlal Nehru b) B. R. Ambedkar
c) Mahatma Gandhi d) Rajendra Prasad

33. ________ articles were there in the original Constitution
a) 395 b) 444 c) 370 d) 300

34. Article 14 is in: _______
a) Part II b) Part III c) Part IV d) Part V

35. The preamble to the Constitution declares India as:
a) Capitalist Republic b) Democratic Monarchy
c) We, the people of India d) Communist State

36. Who Prepares Voters list in India?
a) Supreme Court b) Election Commission of India
c) Parliament d) Cabinet

37. Fundamental Duties were added by which amendment
a) 42nd Amendment b) 44th Amendment
c) 61st Amendment d) 86th Amendment

38. How many Fundamental Rights are guaranteed by the Indian Constitution?
a) 5 b) 6 c) 7 d) 8

39. How many sessions will be conducted to the parliament in a year?
a) 02 b) 04 c) 03 d) 05

40. The First President of India:
a) Dr. B. R. Ambedkar b) Mahatma Gandhi
c) Dr. Rajendra Prasad d) Sardar Patel

41. Which of the following is a power of the President of India?
a) Appointing the Prime Minister b) Dissolving the Lok Sabha
c) Nominating members of Rajya Sabha d) All of these

42. The President of India is elected for a term of :
a) 6 years b) 5 years
c) 4 years d) 3 years

43. Who is the ex-officio Chairman of the Rajya Sabha?
a) Prime Minister b) Vice President
c) President d) Speaker of Lok Sabha

44. Who is the Head of the Union Cabinet?
a) Prime Minister
b) President
c) Chief Justice of India
d) Vice President

45. Who appoints the Chief Justice of India?
a) President
b) Parliament
c) Lok Sabha
d) Prime Minister

46. Who can dissolve the Lok Sabha?
a) Rajya Sabha
b) President
c) Prime Minister
d) Speaker of Lok Sabha

47. Which of the following is the Lower House of the State Legislature?
a) Legislative Council
b) Legislative Assembly
c) Rajya Sabha
d) Lok Sabha

48. How many writs are there in Indian Constitution?
a) 04 b) 08 c) 05 d) 02

49. Article _______ of the Constitution provides for the Emergency Provisions
a) Article 352 to 360
b) Article 12 to 35
c) Article 370
d) Article 1 to 11

50. The first Prime Minister of India :
a) Dr. B. R. Ambedkar
b) Mahatma Gandhi
c) Jawaharlal Nehru
d) Sardar Patel

* * * * *

CBCS SCHEME

BICOK107/207

USN | | | | | | | | | |

Question Paper Version : A

First/Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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. Constitution is important and necessary for a country to __________
   a) To establish foreign relations
   b) To define duties of the citizens only
   c) To ensure law and order only
   d) To lay down the fundamental principles and framework of governance

2. Key objective of the Indian Constitution is : ________
   a) Promote dictatorship
   b) Centralize power in monarchy
   c) Secure justice, liberty, equality and fraternity
   d) Establish a single religion

3. Chairman of the Indian Constitution formation assembly is : _______
   a) Mahatma Gandhi b) Jawaharlal Nehru
   c) B. R. Ambedkar d) Rajendra Prasad

4. One of the major challenges before the Constituent Assembly was : ________
   a) Imposing military rule
   b) Uniting princely states and ensuring representation of diverse groups
   c) Selecting a king
   d) Protecting British interests

5. The salient feature of the Indian Constitution is _______
   a) Unitary Constitution b) Presidential form of Government
   c) Rigid Constitution only d) Federal structure with a strong centre

6. _________ of the Indian Constitution contains the Fundamental Rights
a) Part I
b) Part II
c) Part III
d) Part IV

7. Preamble declares India to be a : _________
a) Democratic, Monarchial, Secular Republic
b) Sovereign, Socialist, Secular, Democratic Republic
c) Sovereign, Democratic, Capitalist Republic
d) Socialist, Federal, Unitary Republic

8. Key objective of the Preamble is ________
a) To create laws
b) To outline the duties of citizens
c) To state the aims and ideals of the Constitution
d) To provide penalties for crimes

9. Right to Freedom under Article 19 is subject to :
a) No restrictions
b) Unlimited individual choice
c) Reasonable restrictions imposed by the State
d) Foreign approval

10. Article ______ guarantees the Right to Constitutional Remedies
a) Article 19
b) Article 21
c) Article 32
d) Article 14

11. Directive Principles of State Policy are : _______
a) To impose taxes
b) To guide the judiciary
c) To establish a welfare state
d) To limit Fundamental Rights

12. Article _______ deals with the Fundamental Duties of Citizens
a) Article 32
b) Article 45
c) Article 51A
d) Article 368

13. As on 2025, ______ Fundamental Duties are there in the Indian Constitution
a) 10
b) 11
c) 12
d) 9

14. Parliamentary system of India is adopted from ______ Constitution
a) USA
b) France
c) Britain
d) Germany

15. The Constitutional Head of the Country is : ________
a) Prime Minister
b) Speaker
c) President
d) Chief Justice

16. The term of Vice President is : ________ years
a) 03
b) 04
c) 05
d) 06

17. Union Cabinet is composed of : _______
a) Only the Prime Minister
b) President and Ministers
c) Prime Minister and Senior Ministers
d) Prime Minister and Governors

18. Fundamental Duty emphasizes the spirit of scientific temper and reform to _____
a) To pay taxes
b) To develop scientific temper, humanism and the spirit of inquiry
c) To vote during MP's elections
d) To speak only in Hindi

19. Strength of the Karnataka Vidhana Sabha as on 2025 :
a) 144 b) 213 c) 224 d) 113

20. Which of the following statements is true about Rajya Sabha?
a) It is dissolved every 5 years b) It is a upper house
c) It has more powers than Lok Sabha d) It controls the Council of Ministers

21. _____ Presides over the joint sitting of both Houses of Parliament
a) Prime Minister b) Speaker of Lok Sabha
c) Vice President d) President of India

22. Highest judicial body in the Nation : _____
a) High Court b) Sessions Court
c) Supreme Court d) District Court

23. _____ Judges (including the Chief Justice) are there in the Supreme Court of India (as of 2025).
a) 25 b) 31 c) 34 d) 35

24. _____ Court deals with disputes between states or between the Centre and states of India
a) High Court b) Supreme Court
c) District Court d) Family Court

25. Who appoints the Chief Minister of a state?
a) Chief Minister b) Governor
c) Prime Minister d) Chief Justice of India

26. State Council of Minister/s is collectively responsible to the : _____
a) Governor b) President
c) Prime Minister d) Vidhan Sabha

27. In bicameral legislature, the upper house is called : _____
a) Vidhan Sabha b) Lok Sabha
c) Rajya Sabha d) Vidhan Parishad

28. _____ conducts elections to the Parliament and State Legislatures
a) President b) Governor
c) Supreme Court d) Election Commission of India

29. _____ amendment lowered the voting age from 21 to 18 years in India.
a) 42nd Amendment b) 61st Amendment
c) 44th Amendment d) 52nd Amendment

30. Under _______ the President declare a State emergency/President Rule
a) Article 352 b) Article 360
c) Article 356 d) Article 365

31. Constitution of India was adopted on : _______
a) 15th August 1947 b) 26th November 1949
c) 26th January 1950 d) 2nd October 1950

32. Father of the Indian Constitution is : ________
a) Jawaharlal Nehru b) B. R. Ambedkar
c) Mahatma Gandhi d) Rajendra Prasad

33. ________ articles were there in the original Constitution
a) 395 b) 444 c) 370 d) 300

34. Article 14 is in: _______
a) Part II b) Part III c) Part IV d) Part V

35. The preamble to the Constitution declares India as:
a) Capitalist Republic b) Democratic Monarchy
c) We, the people of India d) Communist State

36. Who Prepares Voters list in India?
a) Supreme Court b) Election Commission of India
c) Parliament d) Cabinet

37. Fundamental Duties were added by which amendment
a) 42nd Amendment b) 44th Amendment
c) 61st Amendment d) 86th Amendment

38. How many Fundamental Rights are guaranteed by the Indian Constitution?
a) 5 b) 6 c) 7 d) 8

39. How many sessions will be conducted to the parliament in a year?
a) 02 b) 04 c) 03 d) 05

40. The First President of India:
a) Dr. B. R. Ambedkar b) Mahatma Gandhi
c) Dr. Rajendra Prasad d) Sardar Patel

41. Which of the following is a power of the President of India?
a) Appointing the Prime Minister b) Dissolving the Lok Sabha
c) Nominating members of Rajya Sabha d) All of these

42. The President of India is elected for a term of :
a) 6 years b) 5 years
c) 4 years d) 3 years

43. Who is the ex-officio Chairman of the Rajya Sabha?
a) Prime Minister b) Vice President
c) President d) Speaker of Lok Sabha

44. Who is the Head of the Union Cabinet?
a) Prime Minister
b) President
c) Chief Justice of India
d) Vice President

45. Who appoints the Chief Justice of India?
a) President
b) Parliament
c) Lok Sabha
d) Prime Minister

46. Who can dissolve the Lok Sabha?
a) Rajya Sabha
b) President
c) Prime Minister
d) Speaker of Lok Sabha

47. Which of the following is the Lower House of the State Legislature?
a) Legislative Council
b) Legislative Assembly
c) Rajya Sabha
d) Lok Sabha

48. How many writs are there in Indian Constitution?
a) 04
b) 08
c) 05
d) 02

49. Article _______ of the Constitution provides for the Emergency Provisions
a) Article 352 to 360
b) Article 12 to 35
c) Article 370
d) Article 1 to 11

50. The first Prime Minister of India :
a) Dr. B. R. Ambedkar
b) Mahatma Gandhi
c) Jawaharlal Nehru
d) Sardar Patel

* * * * *

CBCS SCHEME

BICOK107/207

USN | | | | | | | | | |

Question Paper Version : A

First/Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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. Constitution is important and necessary for a country to __________
a) To establish foreign relations
b) To define duties of the citizens only
c) To ensure law and order only
d) To lay down the fundamental principles and framework of governance

2. Key objective of the Indian Constitution is : ________
a) Promote dictatorship
b) Centralize power in monarchy
c) Secure justice, liberty, equality and fraternity
d) Establish a single religion

3. Chairman of the Indian Constitution formation assembly is : _______
a) Mahatma Gandhi b) Jawaharlal Nehru
c) B. R. Ambedkar d) Rajendra Prasad

4. One of the major challenges before the Constituent Assembly was : ________
a) Imposing military rule
b) Uniting princely states and ensuring representation of diverse groups
c) Selecting a king
d) Protecting British interests

5. The salient feature of the Indian Constitution is _______
a) Unitary Constitution b) Presidential form of Government
c) Rigid Constitution only d) Federal structure with a strong centre

6. _________ of the Indian Constitution contains the Fundamental Rights
a) Part I
b) Part II
c) Part III
d) Part IV

7. Preamble declares India to be a : _________
a) Democratic, Monarchial, Secular Republic
b) Sovereign, Socialist, Secular, Democratic Republic
c) Sovereign, Democratic, Capitalist Republic
d) Socialist, Federal, Unitary Republic

8. Key objective of the Preamble is ________
a) To create laws
b) To outline the duties of citizens
c) To state the aims and ideals of the Constitution
d) To provide penalties for crimes

9. Right to Freedom under Article 19 is subject to :
a) No restrictions
b) Unlimited individual choice
c) Reasonable restrictions imposed by the State
d) Foreign approval

10. Article ______ guarantees the Right to Constitutional Remedies
a) Article 19
b) Article 21
c) Article 32
d) Article 14

11. Directive Principles of State Policy are : _______
a) To impose taxes
b) To guide the judiciary
c) To establish a welfare state
d) To limit Fundamental Rights

12. Article _______ deals with the Fundamental Duties of Citizens
a) Article 32
b) Article 45
c) Article 51A
d) Article 368

13. As on 2025, ______ Fundamental Duties are there in the Indian Constitution
a) 10
b) 11
c) 12
d) 9

14. Parliamentary system of India is adopted from ______ Constitution
a) USA
b) France
c) Britain
d) Germany

15. The Constitutional Head of the Country is : ________
a) Prime Minister
b) Speaker
c) President
d) Chief Justice

16. The term of Vice President is : ________ years
a) 03
b) 04
c) 05
d) 06

17. Union Cabinet is composed of : _______
a) Only the Prime Minister
b) President and Ministers
c) Prime Minister and Senior Ministers
d) Prime Minister and Governors

18. Fundamental Duty emphasizes the spirit of scientific temper and reform to _____
a) To pay taxes
b) To develop scientific temper, humanism and the spirit of inquiry
c) To vote during MP's elections
d) To speak only in Hindi

19. Strength of the Karnataka Vidhana Sabha as on 2025 :
a) 144 b) 213 c) 224 d) 113

20. Which of the following statements is true about Rajya Sabha?
a) It is dissolved every 5 years b) It is a upper house
c) It has more powers than Lok Sabha d) It controls the Council of Ministers

21. _____ Presides over the joint sitting of both Houses of Parliament
a) Prime Minister b) Speaker of Lok Sabha
c) Vice President d) President of India

22. Highest judicial body in the Nation : _____
a) High Court b) Sessions Court
c) Supreme Court d) District Court

23. _____ Judges (including the Chief Justice) are there in the Supreme Court of India (as of 2025).
a) 25 b) 31 c) 34 d) 35

24. _____ Court deals with disputes between states or between the Centre and states of India
a) High Court b) Supreme Court
c) District Court d) Family Court

25. Who appoints the Chief Minister of a state?
a) Chief Minister b) Governor
c) Prime Minister d) Chief Justice of India

26. State Council of Minister/s is collectively responsible to the : _____
a) Governor b) President
c) Prime Minister d) Vidhan Sabha

27. In bicameral legislature, the upper house is called : _____
a) Vidhan Sabha b) Lok Sabha
c) Rajya Sabha d) Vidhan Parishad

28. _____ conducts elections to the Parliament and State Legislatures
a) President b) Governor
c) Supreme Court d) Election Commission of India

29. _____ amendment lowered the voting age from 21 to 18 years in India.
a) 42nd Amendment b) 61st Amendment
c) 44th Amendment d) 52nd Amendment

30. Under _______ the President declare a State emergency/President Rule
a) Article 352 b) Article 360
c) Article 356 d) Article 365

31. Constitution of India was adopted on : _______
a) 15th August 1947 b) 26th November 1949
c) 26th January 1950 d) 2nd October 1950

32. Father of the Indian Constitution is : ________
a) Jawaharlal Nehru b) B. R. Ambedkar
c) Mahatma Gandhi d) Rajendra Prasad

33. ________ articles were there in the original Constitution
a) 395 b) 444 c) 370 d) 300

34. Article 14 is in: _______
a) Part II b) Part III c) Part IV d) Part V

35. The preamble to the Constitution declares India as:
a) Capitalist Republic b) Democratic Monarchy
c) We, the people of India d) Communist State

36. Who Prepares Voters list in India?
a) Supreme Court b) Election Commission of India
c) Parliament d) Cabinet

37. Fundamental Duties were added by which amendment
a) 42nd Amendment b) 44th Amendment
c) 61st Amendment d) 86th Amendment

38. How many Fundamental Rights are guaranteed by the Indian Constitution?
a) 5 b) 6 c) 7 d) 8

39. How many sessions will be conducted to the parliament in a year?
a) 02 b) 04 c) 03 d) 05

40. The First President of India:
a) Dr. B. R. Ambedkar b) Mahatma Gandhi
c) Dr. Rajendra Prasad d) Sardar Patel

41. Which of the following is a power of the President of India?
a) Appointing the Prime Minister b) Dissolving the Lok Sabha
c) Nominating members of Rajya Sabha d) All of these

42. The President of India is elected for a term of :
a) 6 years b) 5 years
c) 4 years d) 3 years

43. Who is the ex-officio Chairman of the Rajya Sabha?
a) Prime Minister b) Vice President
c) President d) Speaker of Lok Sabha

44. Who is the Head of the Union Cabinet?
a) Prime Minister b) President
c) Chief Justice of India d) Vice President

45. Who appoints the Chief Justice of India?
a) President b) Parliament
c) Lok Sabha d) Prime Minister

46. Who can dissolve the Lok Sabha?
a) Rajya Sabha b) President
c) Prime Minister d) Speaker of Lok Sabha

47. Which of the following is the Lower House of the State Legislature?
a) Legislative Council b) Legislative Assembly
c) Rajya Sabha d) Lok Sabha

48. How many writs are there in Indian Constitution?
a) 04 b) 08 c) 05 d) 02

49. Article _______ of the Constitution provides for the Emergency Provisions
a) Article 352 to 360 b) Article 12 to 35
c) Article 370 d) Article 1 to 11

50. The first Prime Minister of India :
a) Dr. B. R. Ambedkar b) Mahatma Gandhi
c) Jawaharlal Nehru d) Sardar Patel

* * * * *

CBCS SCHEME

BICOK107/207

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

Question Paper Version : A

First/Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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. Constitution is important and necessary for a country to __________
a) To establish foreign relations
b) To define duties of the citizens only
c) To ensure law and order only
d) To lay down the fundamental principles and framework of governance

2. Key objective of the Indian Constitution is : ________
a) Promote dictatorship
b) Centralize power in monarchy
c) Secure justice, liberty, equality and fraternity
d) Establish a single religion

3. Chairman of the Indian Constitution formation assembly is : _______
a) Mahatma Gandhi b) Jawaharlal Nehru
c) B. R. Ambedkar d) Rajendra Prasad

4. One of the major challenges before the Constituent Assembly was : ________
a) Imposing military rule
b) Uniting princely states and ensuring representation of diverse groups
c) Selecting a king
d) Protecting British interests

5. The salient feature of the Indian Constitution is _______
a) Unitary Constitution b) Presidential form of Government
c) Rigid Constitution only d) Federal structure with a strong centre

6. _________ of the Indian Constitution contains the Fundamental Rights
a) Part I b) Part II
c) Part III d) Part IV

7. Preamble declares India to be a : _________
a) Democratic, Monarchial, Secular Republic
b) Sovereign, Socialist, Secular, Democratic Republic
c) Sovereign, Democratic, Capitalist Republic
d) Socialist, Federal, Unitary Republic

8. Key objective of the Preamble is ________
a) To create laws
b) To outline the duties of citizens
c) To state the aims and ideals of the Constitution
d) To provide penalties for crimes

9. Right to Freedom under Article 19 is subject to :
a) No restrictions
b) Unlimited individual choice
c) Reasonable restrictions imposed by the State
d) Foreign approval

10. Article ______ guarantees the Right to Constitutional Remedies
a) Article 19 b) Article 21
c) Article 32 d) Article 14

11. Directive Principles of State Policy are : _______
a) To impose taxes b) To guide the judiciary
c) To establish a welfare state d) To limit Fundamental Rights

12. Article _______ deals with the Fundamental Duties of Citizens
a) Article 32 b) Article 45
c) Article 51A d) Article 368

13. As on 2025, ______ Fundamental Duties are there in the Indian Constitution
a) 10 b) 11 c) 12 d) 9

14. Parliamentary system of India is adopted from ______ Constitution
a) USA b) France c) Britain d) Germany

15. The Constitutional Head of the Country is : ________
a) Prime Minister b) Speaker
c) President d) Chief Justice

16. The term of Vice President is : ________ years
a) 03 b) 04 c) 05 d) 06

17. Union Cabinet is composed of : _______
a) Only the Prime Minister b) President and Ministers
c) Prime Minister and Senior Ministers d) Prime Minister and Governors

18. Fundamental Duty emphasizes the spirit of scientific temper and reform to _____
a) To pay taxes
b) To develop scientific temper, humanism and the spirit of inquiry
c) To vote during MP's elections
d) To speak only in Hindi

19. Strength of the Karnataka Vidhana Sabha as on 2025 :
a) 144 b) 213 c) 224 d) 113

20. Which of the following statements is true about Rajya Sabha?
a) It is dissolved every 5 years b) It is a upper house
c) It has more powers than Lok Sabha d) It controls the Council of Ministers

21. _____ Presides over the joint sitting of both Houses of Parliament
a) Prime Minister b) Speaker of Lok Sabha
c) Vice President d) President of India

22. Highest judicial body in the Nation : _____
a) High Court b) Sessions Court
c) Supreme Court d) District Court

23. _____ Judges (including the Chief Justice) are there in the Supreme Court of India (as of 2025).
a) 25 b) 31 c) 34 d) 35

24. _____ Court deals with disputes between states or between the Centre and states of India
a) High Court b) Supreme Court
c) District Court d) Family Court

25. Who appoints the Chief Minister of a state?
a) Chief Minister b) Governor
c) Prime Minister d) Chief Justice of India

26. State Council of Minister/s is collectively responsible to the : _____
a) Governor b) President
c) Prime Minister d) Vidhan Sabha

27. In bicameral legislature, the upper house is called : _____
a) Vidhan Sabha b) Lok Sabha
c) Rajya Sabha d) Vidhan Parishad

28. _____ conducts elections to the Parliament and State Legislatures
a) President b) Governor
c) Supreme Court d) Election Commission of India

29. _____ amendment lowered the voting age from 21 to 18 years in India.
a) 42nd Amendment b) 61st Amendment
c) 44th Amendment d) 52nd Amendment

30. Under _______ the President declare a State emergency/President Rule
a) Article 352 b) Article 360
c) Article 356 d) Article 365

31. Constitution of India was adopted on : _______
a) 15th August 1947 b) 26th November 1949
c) 26th January 1950 d) 2nd October 1950

32. Father of the Indian Constitution is : ________
a) Jawaharlal Nehru b) B. R. Ambedkar
c) Mahatma Gandhi d) Rajendra Prasad

33. ________ articles were there in the original Constitution
a) 395 b) 444 c) 370 d) 300

34. Article 14 is in: _______
a) Part II b) Part III c) Part IV d) Part V

35. The preamble to the Constitution declares India as:
a) Capitalist Republic b) Democratic Monarchy
c) We, the people of India d) Communist State

36. Who Prepares Voters list in India?
a) Supreme Court b) Election Commission of India
c) Parliament d) Cabinet

37. Fundamental Duties were added by which amendment
a) 42nd Amendment b) 44th Amendment
c) 61st Amendment d) 86th Amendment

38. How many Fundamental Rights are guaranteed by the Indian Constitution?
a) 5 b) 6 c) 7 d) 8

39. How many sessions will be conducted to the parliament in a year?
a) 02 b) 04 c) 03 d) 05

40. The First President of India:
a) Dr. B. R. Ambedkar b) Mahatma Gandhi
c) Dr. Rajendra Prasad d) Sardar Patel

41. Which of the following is a power of the President of India?
a) Appointing the Prime Minister b) Dissolving the Lok Sabha
c) Nominating members of Rajya Sabha d) All of these

42. The President of India is elected for a term of :
a) 6 years b) 5 years
c) 4 years d) 3 years

43. Who is the ex-officio Chairman of the Rajya Sabha?
a) Prime Minister b) Vice President
c) President d) Speaker of Lok Sabha

44. Who is the Head of the Union Cabinet?
a) Prime Minister b) President
c) Chief Justice of India d) Vice President

45. Who appoints the Chief Justice of India?
a) President b) Parliament
c) Lok Sabha d) Prime Minister

46. Who can dissolve the Lok Sabha?
a) Rajya Sabha b) President
c) Prime Minister d) Speaker of Lok Sabha

47. Which of the following is the Lower House of the State Legislature?
a) Legislative Council b) Legislative Assembly
c) Rajya Sabha d) Lok Sabha

48. How many writs are there in Indian Constitution?
a) 04 b) 08 c) 05 d) 02

49. Article _______ of the Constitution provides for the Emergency Provisions
a) Article 352 to 360 b) Article 12 to 35
c) Article 370 d) Article 1 to 11

50. The first Prime Minister of India :
a) Dr. B. R. Ambedkar b) Mahatma Gandhi
c) Jawaharlal Nehru d) Sardar Patel

* * * * *

CBCS SCHEME

USN | | | | | | | | | |

BKSKK107/207
Question Paper Version : A

First/Second Semester B.E/B.Tech. Degree Examination, Dec.2025/Jan.2026

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

(COMMON TO ALL BRANCHES)

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.

---

1. ಧರ್ಮ ಸಹಿಷ್ಣುತೆ ಇದು ಕನ್ನಡಿಗರ ಪರಂಪರೆ, ಇದನ್ನು _____ ಶಾಸನ ಕೂಗಿ ಹೇಳುತ್ತದೆ.

   a) ಹಲ್ಮಿಡಿ ಶಾಸನ b) ಬೇಲೂರು ಶಾಸನ
   c) ಹಳೇಬೀಡು ಶಾಸನ d) ಧಾರ್ಮಿಕ ಶಾಸನ

2. ತನ್ನ ಒಡೆಯನೊಡನೆ ತಾನೂ ಸಾಯುವೆನೆಂದು ಪ್ರಮಾಣ ಮಾಡಿ ಆತ್ಮಹತ್ಯೆ ಮಾಡಿಕೊಳ್ಳುವವರನ್ನು ______ ಎಂದು ಕರೆಯುವರು.

   a) ಸಿಡಿತಲೆ b) ವೇಳವಡಿಚ c) ಮಹಾಸತಿ d) ಮಾಸ್ತಿ

3. ಪ್ರೊ. ಜಿ ವೆಂಕಟಸುಬ್ಬಯ್ಯನವರು ____ ಶಾಸ್ತ್ರದಲ್ಲಿ ಅತ್ಯಂತ ಪರಿಣಿತಿಯನ್ನು ಪಡೆದಿದ್ದರು.

   a) ಹೊಸಕನ್ನಡ b) ಆಧುನಿಕ ಕನ್ನಡ
   c) ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ d) ಕನ್ನಡ ನಿಘಂಟು

4. ಕನ್ನಡ ಭಾಷೆ ____ ಲಿಪಿಯನ್ನು ಹೊಂದಿರುವ ಭಾಷೆಯಾಗಿದೆ.
   a) ಕುಸುಮರಾಣಿ b) ರಾಣಿ
   c) ಕನ್ನಡರಾಣಿ d) ಬ್ರಾಹ್ಮಿ

5. ______ ರಲ್ಲಿ ಸಾರ್ವತ್ರಿಕ ನ್ಯಾಯಾಲಗಳ ತೀರ್ಪಿನ ಭಾಷೆ ಕನ್ನಡವೇ ಆಗಿರಬೇಕೆಂದು ಅಂತಿಮ ಆಜ್ಞೆ ಹೊರಡಿಸಲಾಯಿತು.
   a) 1481 b) 2010 c) 1980 d) 1856.

6. ಯಾವ ಕಥೆಯಲ್ಲಿ ಬದಲಾದ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳಿಂದ ಒದ್ದಾಡುತ್ತಿರುವ ಹಿರಿಯ ಜೀವಿಯೊಬ್ಬನ ಅಸಹಾಯಕತೆಯ ಚಿತ್ರಣವಿದೆ.
   a) ಚೇಳು b) ಹಂಪಿ c) ಯುಗಾದಿ d) ಮೋಹನಸ್ವಾಮಿ

7. ಕನ್ನಡದ ಒಬ್ಬ ಪ್ರಖ್ಯಾತ ಕಥೆಗಾರ ಎಂದು ಯಾರನ್ನು ಕರೆಯುತ್ತಾರೆ?
   a) ವಸುಧೇಂದ್ರ b) ಕುವೆಂಪು c) ಕಾಸಿಂಸಾಬ d) ಇಸ್ಮಾಯಿಲ್

8. ಜಗತ್ತಿನಲ್ಲಿ ಹೆಚ್ಚು ಮಂದಿ ಮಾತನಾಡುವ ಭಾಷೆಯೆಂಬ ನೆಲೆಯಲ್ಲಿ ಕನ್ನಡ ಭಾಷೆಗೆ ದೊರಕಿರುವ ಸ್ಥಾನ.
   a) 29 b) 10 c) 8 d) 14

9. ತಲ್ಲಣಿಸದಿರು ಕಂಡ್ಯ ತಾಳು ಮನವೇ ಕೀರ್ತನೆಯ ರಚನೆಕಾರರು ಯಾರು?
   a) ದಾಸರು b) ಪುರಂದರದಾಸರು c) ಕನಕದಾಸರು d) ಶ್ರೀರಂಗರು

10. ಆದಿಕವಿ ಎಂದು ಯಾರನ್ನು ಕರೆಯುತ್ತಾರೆ?
   a) ರಾಘವಾಂಕ b) ಹರಿಹರ c) ಪಂಪ d) ದಾಸರು

11. ಶರಣರ ಚಳುವಳಿಗೆ ಪ್ರೇರಕ ಶಕ್ತಿಯಾಗಿ ನಿಂತ ಮಹಾಮಾನವತಾ ವಾದಿ ____.
   a) ಅಕ್ಕಮಹಾದೇವಿ b) ಆಯ್ದಕ್ಕಿಮಾರಯ್ಯ c) ಬಸವಣ್ಣ d) ಲಕ್ಕಮ್ಮ

12. ಸಾಮಾಜಿಕ ಕ್ರಾಂತಿಗೆ ನಾಂದಿ ಹಾಡಿದ, ಅಂಧಕಾರದಲ್ಲಿದ್ದ ಸಮಾಜಕ್ಕೆ ಅರಿವಿನ ಬೆಳಕನ್ನು ತೋರಿಸಿದ ಸಾಹಿತ್ಯ.
   a) ಸಾಂಸ್ಕೃತಿಕ ಸಾಹಿಯ್ಯ b) ಹಳೆಗನ್ನಡ ಸಾಹಿತ್ಯ c) ಕನ್ನಡ ಸಾಹಿತ್ಯ d) ವಚನ ಸಾಹಿತ್ಯ

13. _____ ಎಂಬ ಗಾಢನಂಬಿಕೆಯಿಂದ ದಾಸರು ಕೀರ್ತನೆಗಳನ್ನು ರಚಿಸಿದರು.
   a) ಪ್ರಾಣಿಗಳು b) ನಾವು ಮನುಷ್ಯರು
   c) ಪಕ್ಷಿಗಳು d) ಹರಿಯೇ ಸರ್ವೋತ್ತಮ

14. ಹುಲ್ಲಾಗು ಬೆಟ್ಟದಡಿ, ಮನೆಗೆ ಮಲ್ಲಿಗೆಯಾಗು ! ಕಲ್ಲಾಗು ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿಯೇ ! ಎಂದು ಕಗ್ಗದ ಸಾರಾಂಶ.

a) ಜ್ಞಾನ ತತ್ತ್ವ b) ಸ್ವಾಮಿ ತತ್ತ್ವ c) ಜೀವನ ತತ್ತ್ವ d) ವಿದ್ಯಾ ತತ್ತ್ವ

15. ಶಿಶುನಾಳ ಷರೀಫರ ಪ್ರಕಾರ ಆಚಾರ ಎಂದರೆ

a) ಆವಿಗೆ b) ಮಣ್ಣು c) ನೀರು d) ಮನ

16. ಕುರುಡು ಕಾಂಚಾಣ ಈ ಪದ್ಯವನ್ನು ಬರೆದಕವಿ ಯಾರು?

a) ಕುವೆಂಪು b) ದ.ರಾ. ಬೇಂದ್ರೆ

c) ಡಿವಿಜಿ d) ಕೆ.ಎಸ್. ನರಸಿಂಹಮೂರ್ತಿ

17. ಕಾಲಕ್ಕಂಜಿ ಭಕ್ತನಾದೇಡೆ ____ ತಿಂಬುದ ಮಾಬುದೇ

a) ಸರ್ಪ b) ಕೋತಿ c) ಕುದುರೆ d) ಕರ್ಮ

18. ಕಾಯಕದಲ್ಲಿ ನಿರತನಾದಡೆ ____ ದರ್ಶನವಾದಡೊ ಮರೆಯಬೇಕು

a) ಗುರು b) ಲಿಂಗ c) ಜಂಗಮ d) ಶಿವ

19. ಹಲವು ಕಾಲ ಕಲ್ಲು ನೀರೊಳಗಿದ್ದರೇನು? ಬಲುನೆನೆದು ___ ಆಗುವುದೇ.

a) ಅಮೃತ ಶಿಲೆ b) ಹವಳ c) ಕಪ್ಪೆ d) ನಿಧಿ

20. ತೊರೆಯೊಳು ___ ದುರಿತ ಪೋಗುವುದೆ

a) ಮಿಂದರೆ b) ಹಾಡಿದರೆ c) ಕುಣಿದರೆ d) ಮರೆತರೆ

21. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ____ ಕಲೆಗೆ ಮೂಲನೆಲೆ.

a) ಚಿತ್ರ b) ಬಣ್ಣ c) ಮುದ್ರಣ d) ನೇಯ್ಗೆ

22. ತಾಳಗುಪ್ಪ ಗಿರಿಜನ ಆಶ್ರಮ ಶಾಲೆಯ ಮಾಸ್ತರರು ಯಾರು?

a) ಗೋಪಣ್ಣ b) ಪ್ರಹ್ಲಾದ್ c) ಹುಚ್ಚಪ್ಪ d) ಕರೀಂಖಾನ್

23. ದ್ಯಾನದ ಮಗಿಯನ್ನು ಕುಂಬಾರಕಿ ಯಾರ ಮುಂದೆ ಇಡುವಳು?

a) ಶಿಶುನಾಳಧೀಶ b) ಆದಿಕೇಶವ

c) ಮಹಂತಲಿಂಗ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ

24. ಪವಳದ ಲತೆಗೆ ____ಇಟ್ಟವರು ಯಾರು?

a) ಕಪ್ಪು b) ಕೆಂಪು c) ಹಸಿರು d) ಚಿತ್ರ

25. ಈ ಬ್ರಹ್ಮಾಂಡವನ್ನೆಲ್ಲ ಯಾರು ತುಂಬಿಕೊಂಡಿದ್ದಾರೆಂದು ಷರೀಫರು ಹೇಳದ್ದಾರೆ?

a) ಕುಂಬಾರ b) ಬಡಿಗ c) ಕುಂಬಾರಕಿ d) ಗಾಣತಿ

26. ಮಂಡ್ಯಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ ಅಲ್ಲಿಯ ಜನ ಅಭ್ಯುದಯದಲ್ಲಿ ಜೀವಂತವಾಗಿರುವವರು ಯಾರು?

a) ಮಂಡ್ಯದ ಗಂಡು b) ಕೃಷ್ಣರಾಜ ಒಡೆಯರು

c) ಮೈಸೂರು ಅರಸರು d) ವಿಶ್ವೇಶ್ವರಯ್ಯ

27. ಅಂತರ್ಜಾತಿ ವಿವಾಹವಾದವರು ಯಾರು?

a) ಗೋಪಣ್ಣ b) ಕಾಸಂಸಾಬ c) ಪ್ರಹ್ಲಾದ d) ರಾಮ

28. ಗೋಪಣ್ಣ ಮಾಸ್ತರ ಕಣಗಲಿ ಗಿಡದಲಿ ನೋಡದ್ದು ಏನು?

a) ಹೂ b) ಹಣ್ಣು c) ಬಟ್ಟೆ d) ಜನಿವಾರ

29. ಕುಪ್ಪಯ್ಯ ಯಾರಂತೆ ಗೋಚರವಾಗುತ್ತಿದ್ದ?

a) ಪುಟ್ಟಣ್ಣ b) ಕರಿಯ c) ಮಾಳ d) ನಾಗವ

30. ಹಾಸನದ ಬಯಲು ಸೀಮೆಯ ಕಡೆಯಿಂದ ಅಕಸ್ಮಾತ್ತಾಗಿ ಮೆಗಾನೆ ಸೇರಿದವರು ಯಾರು?

a) ಕರಿಯ b) ಯಂಕು c) ಗಣೇಶ d) ಲಕ್ಷ್ಮಮ್ಮ

31. ಕುಣಬಿಯವರು ಮೂಲತ: ಎಲ್ಲಿಯವರು?

a) ಗೋವಾ b) ಶಿವಮೊಗ್ಗ c) ಸಾಗರ d) ಹೈದ್ರಾಬಾದ್

32. ಹೊಸಯುಕ್ತಿ _____ ಒಡಗೊಡೆ ಧರ್ಮ.

a) ಹಳೆತತ್ತ್ವ b) ಹೊಸಮಾತು c) ಹಳೇಬೇರು d) ಧರ್ಮ

33. ಉದಯಾಸ್ತಮಾನ ___ ಮುಳುಗುವರು.

a) ಬಾವಿಯೊಳ್ b) ಕೆರೆಯೊಳ್ c) ಮನದೊಳ್ d) ನೀರೊಳ್

34. ಯಾವ ಸಂಹಾಸನಕೆ ಕೊನೆಗಾಲ ಬಂದಿರುವುದು?

a) ಇಂದ್ರ b) ಕೌರವರು c) ರಾಮ d) ಮಂತ್ರಿ

35. ದಾನವರು ಯಾರಿಗೆ ಮರುಳಾಗಿ ತಮ್ಮ ಪಾಲನ್ನು ದೇವತೆಗಳಿಗೆ ನೀಡುವರು?

a) ಊರ್ವಶಿ b) ಮೋಹಿನಿ c) ರಂಭೆ d) ಮೇನಕೆ

36. ಜ್ಯುಡಿಷಿಯಲ್ ಮ್ಯಾಜಿಸ್ಟ್ರೇಟ್‌ನ ನ್ಯಾಯಾಲದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಕನ್ನಡದಲ್ಲಿ ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾದ ವರ್ಷ.

a) 1971 b) 1972 c) 1973 d) 1974

37. ಬದುಕಿಗೆ ಅವಶ್ಯಕವಾದ ಜೀವನ ತತ್ತ್ವವನ್ನು, ಆಧ್ಯಾತ್ಮಿಕ ಜ್ಞಾನವನ್ನು ಸುಶ್ರಾವ್ಯ ಹಾಡುಗಳ ಮೂಲಕ ಹಾಡುವ ಪದಗಳೇ ಅಥವಾ ಹಾಡುಗಳೇ.

a) ಗೀಗಿ ಪದ b) ತತ್ತ್ವ ಪದ c) ಹಾಡು d) ಸಾಹಿತ್ಯ

38. ಕರುಣ ಬಂದರ ಕಾಯೋ ____ ಬಂದರ ಒಯ್ಯೊ

a) ಕರುಣ b) ದಯೆ c) ಬಡತನ d) ಮರಣ

39. ಮೂಡಲ ಮುತ್ತಯ್ಯ ಎಂದರೆ.

a) ಆಕಾಶ b) ಶಶಿ c) ನಕ್ಷತ್ರ d) ಸೂರ್ಯ

40. ಬಡವರಿಗೆ ____ ಕೊಡಬೇಡ

a) ದಯೆ b) ಅನುಕಂಪ c) ಆರೋಗ್ಯ d) ಸಾವ

41. ಸಮಕಾಲೀನ ಪ್ರಜ್ಞೆಯ ಕುರುಹಾಗಿರುವ ಸರ್ವೋದಯ ಸಾರುವ ಕವನ ಇದಾಗಿದೆ.

a) ಕುರುಡು ಕಾಂಚಾಣ b) ಹೊಸಬಾಳಿನ ಗೀತೆ c) ಕೀರ್ತನೆಗಳು d) ವಚನಗಳು

42 ಭಾಷೆಗೆ ಪ್ರಮುಖವಾಗಿ ಎಷ್ಟು ಕೌಶಲಗಳಿವೆ?

a) 4 b) 5 c) 8 d) 10

43. ಆಲೂರು ವೆಂಕಟರಾಯರು ರಚಿಸಿದ ಗ್ರಂಥ ಯಾವುದು?

a) ಕರ್ನಾಟಕ ಏಕೀಕರಣ b) ಕರ್ನಾಟಕ ಗತವೈಭವ

c) ನಾದಲೀಲೆ d) ಗರಿಜನ ಗೀತೆ

44. ಭದ್ರಾವತಿಯ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕರ್ಖಾನೆಯಲ್ಲಿ ಮೇಲ್ವಿಚಾರಕರಾಗಿದ್ದ ಅಮೇರಿಕಾದ ಅಧಿಕಾರಿ

a) ಡಿ.ಸಿ b) ಬ್ಲಾಸ್ಟ್ ಫರ್ನೇಸಿನ್ c) ವಿಶ್ವೇಶ್ವರಯ್ಯ d) ಬ್ರಿಟಿಷರು

45. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಹತ್ತಿರ ಯಾವಾಗಲೂ ಇರುತ್ತಿದ್ದ ಪ್ರಸಿದ್ಧ ಪುಸ್ತಕ.

a) ಬೈಬಲ್ b) ಕುರಾನ್ c) ರಾಮಾಯಣ d) ಭಗವದ್ಗೀತೆ

46. ಮಿಲ್ಲರ್ ಆಯೋಗವನ್ನು ರಚಿಸಿದವರು.
    a) ನಾಲ್ವಡಿ ಕೃಷ್ಣರಾಜ ಒಡೆಯರ್
    b) ವಿಶ್ವೇಶ್ವರಯ್ಯ
    c) ಅರಸರು
    d) ರಾಜರು

47. ದೇವರು ಪ್ರತಿಯೊಂದನ್ನು ಜೋಪಾನ ಮಾಡುತ್ತಾನೆ ಎಂಬುದು ಇವರ ಅಭಿಪ್ರಾಯ.
    a) ಕನಕದಾಸರು
    b) ಪುರಂದರದಾಸರು
    c) ದಾಸರು
    d) ದೇವರು

48. ಮೆಗಾನೆ ಪರ್ವತದ ಒಟ್ಟು ಎತ್ತರ
    a) 5000 ಅಡಿ
    b) 4000 ಅಡಿ
    c) 3000 ಅಡಿ
    d) 2000 ಅಡಿ

49. ಇದೇನು ಆಕಾಶಕ್ಕೆ ಏಣಿಯೇ? ಬೆಟ್ಟದ ಮೇಲೊಂದು ಬಟ್ಟ ಇರುವಂತೆ ಇರುವುದೇ ____ ಪರ್ವತದ ವಿಶೇಷ.
    a) ಕುಣಬಿ
    b) ಗಿರಿಜನ
    c) ಸಹ್ಯಾದ್ರಿ
    d) ಹಿಮಾಲಯ

50. ನಮ್ಮ ಎರಡಡಕೆ, ನಿಮ್ಮ ಎರಡಡಕೆ ಜೋಡು ಮಾಡಯ್ಯ ಶಿವನೇ ಇದು ಲಕ್ಷ್ಮಮ್ಮನ ____ ಗೀತೆ.
    a) ಭಾವಗೀತೆ
    b) ಭಕ್ತಿಗೀತೆ
    c) ಚಲನಚಿತ್ರಗೀತೆ
    d) ಜನಪದ ಗೀತೆ

* * * * *

CBCS SCHEME

USN

BKSKK107/207
Question Paper Version : A

First/Second Semester B.E/B.Tech. Degree Examination, Dec.2025/Jan.2026

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

(COMMON TO ALL BRANCHES)

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.

---

1. ಧರ್ಮ ಸಹಿಷ್ಣುತೆ ಇದು ಕನ್ನಡಿಗರ ಪರಂಪರೆ, ಇದನ್ನು _____ ಶಾಸನ ಕೂಗಿ ಹೇಳುತ್ತದೆ.

   a) ಹಲ್ಮಿಡಿ ಶಾಸನ b) ಬೇಲೂರು ಶಾಸನ
   c) ಹಳೇಬೀಡು ಶಾಸನ d) ಧಾರ್ಮಿಕ ಶಾಸನ

2. ತನ್ನ ಒಡೆಯನೊಡನೆ ತಾನೂ ಸಾಯುವೆನೆಂದು ಪ್ರಮಾಣ ಮಾಡಿ ಆತ್ಮಹತ್ಯೆ ಮಾಡಿಕೊಳ್ಳುವವರನ್ನು ______ ಎಂದು ಕರೆಯುವರು.

   a) ಸಿಡಿತಲೆ b) ವೇಳವಡಿಚ c) ಮಹಾಸತಿ d) ಮಾಸ್ತಿ

3. ಪ್ರೊ. ಜಿ ವೆಂಕಟಸುಬ್ಬಯ್ಯನವರು ____ ಶಾಸ್ತ್ರದಲ್ಲಿ ಅತ್ಯಂತ ಪರಿಣಿತಿಯನ್ನು ಪಡೆದಿದ್ದರು.

   a) ಹೊಸಕನ್ನಡ b) ಆಧುನಿಕ ಕನ್ನಡ
   c) ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ d) ಕನ್ನಡ ನಿಘಂಟು

4. ಕನ್ನಡ ಭಾಷೆ ____ ಲಿಪಿಯನ್ನು ಹೊಂದಿರುವ ಭಾಷೆಯಾಗಿದೆ.

a) ಕುಸುಮರಾಣಿ b) ರಾಣಿ

c) ಕನ್ನಡರಾಣಿ d) ಬ್ರಾಹ್ಮಿ

5. ______ ರಲ್ಲಿ ಸಾರ್ವತ್ರಿಕ ನ್ಯಾಯಾಲಗಳ ತೀರ್ಪಿನ ಭಾಷೆ ಕನ್ನಡವೇ ಆಗಿರಬೇಕೆಂದು ಅಂತಿಮ ಆಜ್ಞೆ ಹೊರಡಿಸಲಾಯಿತು.

a) 1481 b) 2010 c) 1980 d) 1856.

6. ಯಾವ ಕಥೆಯಲ್ಲಿ ಬದಲಾದ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳಿಂದ ಒದ್ದಾಡುತ್ತಿರುವ ಹಿರಿಯ ಜೀವಿಯೊಬ್ಬನ ಅಸಹಾಯಕತೆಯ ಚಿತ್ರಣವಿದೆ.

a) ಚೇಳು b) ಹಂಪಿ c) ಯುಗಾದಿ d) ಮೋಹನಸ್ವಾಮಿ

7. ಕನ್ನಡದ ಒಬ್ಬ ಪ್ರಖ್ಯಾತ ಕಥೆಗಾರ ಎಂದು ಯಾರನ್ನು ಕರೆಯುತ್ತಾರೆ?

a) ವಸುಧೇಂದ್ರ b) ಕುವೆಂಪು c) ಕಾಸಿಂಸಾಬ d) ಇಸ್ಮಾಯಿಲ್

8. ಜಗತ್ತಿನಲ್ಲಿ ಹೆಚ್ಚು ಮಂದಿ ಮಾತನಾಡುವ ಭಾಷೆಯೆಂಬ ನೆಲೆಯಲ್ಲಿ ಕನ್ನಡ ಭಾಷೆಗೆ ದೊರಕಿರುವ ಸ್ಥಾನ.

a) 29 b) 10 c) 8 d) 14

9. ತಲ್ಲಣಿಸದಿರು ಕಂಡ್ಯ ತಾಳು ಮನವೇ ಕೀರ್ತನೆಯ ರಚನೆಕಾರರು ಯಾರು?

a) ದಾಸರು b) ಪುರಂದರದಾಸರು c) ಕನಕದಾಸರು d) ಶ್ರೀರಂಗರು

10. ಆದಿಕವಿ ಎಂದು ಯಾರನ್ನು ಕರೆಯುತ್ತಾರೆ?

a) ರಾಘವಾಂಕ b) ಹರಿಹರ c) ಪಂಪ d) ದಾಸರು

11. ಶರಣರ ಚಳುವಳಿಗೆ ಪ್ರೇರಕ ಶಕ್ತಿಯಾಗಿ ನಿಂತ ಮಹಾಮಾನವತಾ ವಾದಿ ____.

a) ಅಕ್ಕಮಹಾದೇವಿ b) ಆಯ್ದಕ್ಕಿಮಾರಯ್ಯ c) ಬಸವಣ್ಣ d) ಲಕ್ಕಮ್ಮ

12. ಸಾಮಾಜಿಕ ಕ್ರಾಂತಿಗೆ ನಾಂದಿ ಹಾಡಿದ, ಅಂಧಕಾರದಲ್ಲಿದ್ದ ಸಮಾಜಕ್ಕೆ ಅರಿವಿನ ಬೆಳಕನ್ನು ತೋರಿಸಿದ ಸಾಹಿತ್ಯ.

a) ಸಾಂಸ್ಕೃತಿಕ ಸಾಹಿಯ್ಯ b) ಹಳೆಗನ್ನಡ ಸಾಹಿತ್ಯ c) ಕನ್ನಡ ಸಾಹಿತ್ಯ d) ವಚನ ಸಾಹಿತ್ಯ

13. _____ ಎಂಬ ಗಾಢನಂಬಿಕೆಯಿಂದ ದಾಸರು ಕೀರ್ತನೆಗಳನ್ನು ರಚಿಸಿದರು.

a) ಪ್ರಾಣಿಗಳು b) ನಾವು ಮನುಷ್ಯರು

c) ಪಕ್ಷಿಗಳು d) ಹರಿಯೇ ಸರ್ವೋತ್ತಮ

14. ಹುಲ್ಲಾಗು ಬೆಟ್ಟದಡಿ, ಮನೆಗೆ ಮಲ್ಲಿಗೆಯಾಗು ! ಕಲ್ಲಾಗು ಕಷ್ಟಗಳ ಮಳೆಯ ವಿಧಿ ಸುರಿಯೇ ! ಎಂದು ಕಗ್ಗದ ಸಾರಾಂಶ.

a) ಜ್ಞಾನ ತತ್ತ್ವ b) ಸ್ವಾಮಿ ತತ್ತ್ವ c) ಜೀವನ ತತ್ತ್ವ d) ವಿದ್ಯಾ ತತ್ತ್ವ

15. ಶಿಶುನಾಳ ಷರೀಫರ ಪ್ರಕಾರ ಆಚಾರ ಎಂದರೆ

a) ಆವಿಗೆ b) ಮಣ್ಣು c) ನೀರು d) ಮನ

16. ಕುರುಡು ಕಾಂಚಾಣ ಈ ಪದ್ಯವನ್ನು ಬರೆದಕವಿ ಯಾರು?

a) ಕುವೆಂಪು b) ದ.ರಾ. ಬೇಂದ್ರೆ

c) ಡಿವಿಜಿ d) ಕೆ.ಎಸ್. ನರಸಿಂಹಮೂರ್ತಿ

17. ಕಾಲಕ್ಕಂಜಿ ಭಕ್ತನಾದೇಡೆ ____ ತಿಂಬುದ ಮಾಬುದೇ

a) ಸರ್ಪ b) ಕೋತಿ c) ಕುದುರೆ d) ಕರ್ಮ

18. ಕಾಯಕದಲ್ಲಿ ನಿರತನಾದಡೆ ____ ದರ್ಶನವಾದಡೂ ಮರೆಯಬೇಕು

a) ಗುರು b) ಲಿಂಗ c) ಜಂಗಮ d) ಶಿವ

19. ಹಲವು ಕಾಲ ಕಲ್ಲು ನೀರೋಳಗಿದ್ದರೇನು? ಬಲುನೆನೆದು ___ ಆಗುವುದೇ.

a) ಅಮೃತ ಶಿಲೆ b) ಹವಳ c) ಕಪ್ಪೆ d) ನಿಧಿ

20. ತೊರೆಯೊಳು ___ ದುರಿತ ಪೋಗುವುದೆ

a) ಮಿಂದರೆ b) ಹಾಡಿದರೆ c) ಕುಣಿದರೆ d) ಮರೆತರೆ

21. ಭಾರತವು ಬಟ್ಟೆಯ ಮೇಲಿನ ____ಕಲೆಗೆ ಮೂಲನೆಲೆ.

a) ಚಿತ್ರ b) ಬಣ್ಣ c) ಮುದ್ರಣ d) ನೇಯ್ಗೆ

22. ತಾಳಗುಪ್ಪ ಗಿರಿಜನ ಆಶ್ರಮ ಶಾಲೆಯ ಮಾಸ್ತರರು ಯಾರು?

a) ಗೋಪಣ್ಣ b) ಪ್ರಹ್ಲಾದ್ c) ಹುಚ್ಚಪ್ಪ d) ಕರೀಂಖಾನ್

23. ದ್ಯಾನದ ಮಗಿಯನ್ನು ಕುಂಬಾರಕಿ ಯಾರ ಮುಂದೆ ಇಡುವಳು?

a) ಶಿಶುನಾಳಧೀಶ b) ಆದಿಕೇಶವ

c) ಮಹಂತಲಿಂಗ d) ಚೆನ್ನಮಲ್ಲಿಕಾರ್ಜುನ

24. ಪವಳದ ಲತೆಗೆ ____ಇಟ್ಟವರು ಯಾರು?

a) ಕಪ್ಪು b) ಕೆಂಪು c) ಹಸಿರು d) ಚಿತ್ರ

25. ಈ ಬ್ರಹ್ಮಾಂಡವನ್ನೆಲ್ಲ ಯಾರು ತುಂಬಿಕೊಂಡಿದ್ದಾರೆಂದು ಷರೀಫರು ಹೇಳದ್ದಾರೆ?

a) ಕುಂಬಾರ b) ಬಡಿಗ c) ಕುಂಬಾರಕಿ d) ಗಾಣತಿ

26. ಮಂಡ್ಯಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ ಅಲ್ಲಿಯ ಜನ ಅಭ್ಯುದಯದಲ್ಲಿ ಜೀವಂತವಾಗಿರುವವರು ಯಾರು?

a) ಮಂಡ್ಯದ ಗಂಡು b) ಕೃಷ್ಣರಾಜ ಒಡೆಯರು

c) ಮೈಸೂರು ಅರಸರು d) ವಿಶ್ವೇಶ್ವರಯ್ಯ

27. ಅಂತರ್ಜಾತಿ ವಿವಾಹವಾದವರು ಯಾರು?

a) ಗೋಪಣ್ಣ b) ಕಾಸಂಸಾಬ c) ಪ್ರಹ್ಲಾದ d) ರಾಮ

28. ಗೋಪಣ್ಣ ಮಾಸ್ತರ ಕಣಗಲಿ ಗಿಡದಲಿ ನೋಡದ್ದು ಏನು?

a) ಹೂ b) ಹಣ್ಣು c) ಬಟ್ಟೆ d) ಜನಿವಾರ

29. ಕುಪ್ಪಯ್ಯ ಯಾರಂತೆ ಗೋಚರವಾಗುತ್ತಿದ್ದ?

a) ಪುಟ್ಟಣ್ಣ b) ಕರಿಯ c) ಮಾಳ d) ನಾಗವ

30. ಹಾಸನದ ಬಯಲು ಸೀಮೆಯ ಕಡೆಯಿಂದ ಅಕಸ್ಮಾತ್ತಾಗಿ ಮೆಗಾನೆ ಸೇರಿದವರು ಯಾರು?

a) ಕರಿಯ b) ಯಂಕು c) ಗಣೇಶ d) ಲಕ್ಷ್ಮಮ್ಮ

31. ಕುಣಬಿಯವರು ಮೂಲತಃ ಎಲ್ಲಿಯವರು?

a) ಗೋವಾ b) ಶಿವಮೊಗ್ಗ c) ಸಾಗರ d) ಹೈದ್ರಾಬಾದ್

32. ಹೊಸಯುಕ್ತಿ _____ ಒಡಗೊಡೆ ಧರ್ಮ.

a) ಹಳೆತತ್ತ್ವ b) ಹೊಸಮಾತು c) ಹಳೇಬೇರು d) ಧರ್ಮ

33. ಉದಯಾಸ್ತಮಾನ ___ ಮುಳುಗುವರು.

a) ಬಾವಿಯೊಳ್ b) ಕೆರೆಯೊಳ್ c) ಮನದೊಳ್ d) ನೀರೊಳ್

34. ಯಾವ ಸಂಹಾಸನಕೆ ಕೊನೆಗಾಲ ಬಂದಿರುವುದು?

a) ಇಂದ್ರ b) ಕೌರವರು c) ರಾಮ d) ಮಂತ್ರಿ

35. ದಾನವರು ಯಾರಿಗೆ ಮರುಳಾಗಿ ತಮ್ಮ ಪಾಲನ್ನು ದೇವತೆಗಳಿಗೆ ನೀಡುವರು?

a) ಊರ್ವಶಿ b) ಮೋಹಿನಿ c) ರಂಭೆ d) ಮೇನಕೆ

36. ಜ್ಯುಡಿಷಿಯಲ್ ಮ್ಯಾಜಿಸ್ಟ್ರೇಟ್‌ನ ನ್ಯಾಯಾಲದ ವಾದ ಮತ್ತು ತೀರ್ಪಿನ ಭಾಷೆ ಕನ್ನಡದಲ್ಲಿ ಇರಬೇಕೆಂದು ತೀರ್ಮಾನಿಸಲಾದ ವರ್ಷ.

a) 1971 b) 1972 c) 1973 d) 1974

37. ಬದುಕಿಗೆ ಅವಶ್ಯಕವಾದ ಜೀವನ ತತ್ತ್ವವನ್ನು, ಆಧ್ಯಾತ್ಮಿಕ ಜ್ಞಾನವನ್ನು ಸುಶ್ರಾವ್ಯ ಹಾಡುಗಳ ಮೂಲಕ ಹಾಡುವ ಪದಗಳೇ ಅಥವಾ ಹಾಡುಗಳೇ.

a) ಗೀಗಿ ಪದ b) ತತ್ತ್ವ ಪದ c) ಹಾಡು d) ಸಾಹಿತ್ಯ

38. ಕರುಣ ಬಂದರ ಕಾಯೋ ____ ಬಂದರ ಒಯ್ಯೊ

a) ಕರುಣ b) ದಯೆ c) ಬಡತನ d) ಮರಣ

39. ಮೂಡಲ ಮುತ್ತಯ್ಯ ಎಂದರೆ.

a) ಆಕಾಶ b) ಶಶಿ c) ನಕ್ಷತ್ರ d) ಸೂರ್ಯ

40. ಬಡವರಿಗೆ ____ ಕೊಡಬೇಡ

a) ದಯೆ b) ಅನುಕಂಪ c) ಆರೋಗ್ಯ d) ಸಾವ

41. ಸಮಕಾಲೀನ ಪ್ರಜ್ಞೆಯ ಕುರುಹಾಗಿರುವ ಸರ್ವೋದಯ ಸಾರುವ ಕವನ ಇದಾಗಿದೆ.

a) ಕುರುಡು ಕಾಂಚಾಣ b) ಹೊಸಬಾಳಿನ ಗೀತೆ c) ಕೀರ್ತನೆಗಳು d) ವಚನಗಳು

42 ಭಾಷೆಗೆ ಪ್ರಮುಖವಾಗಿ ಎಷ್ಟು ಕೌಶಲಗಳಿವೆ?

a) 4 b) 5 c) 8 d) 10

43. ಆಲೂರು ವೆಂಕಟರಾಯರು ರಚಿಸಿದ ಗ್ರಂಥ ಯಾವುದು?

a) ಕರ್ನಾಟಕ ಏಕೀಕರಣ b) ಕರ್ನಾಟಕ ಗತವೈಭವ

c) ನಾದಲೀಲೆ d) ಗರಿಜನ ಗೀತೆ

44. ಭದ್ರಾವತಿಯ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕರ್ಖಾನೆಯಲ್ಲಿ ಮೇಲ್ವಿಚಾರಕರಾಗಿದ್ದ ಅಮೇರಿಕಾದ ಅಧಿಕಾರಿ

a) ಡಿ.ಸಿ b) ಬ್ಲಾಸ್ಟ್ ಫರ್ನೇಸಿನ್ c) ವಿಶ್ವೇಶ್ವರಯ್ಯ d) ಬ್ರಿಟಿಷರು

45. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರ ಹತ್ತಿರ ಯಾವಾಗಲೂ ಇರುತ್ತಿದ್ದ ಪ್ರಸಿದ್ಧ ಪುಸ್ತಕ.

a) ಬೈಬಲ್ b) ಕುರಾನ್ c) ರಾಮಾಯಣ d) ಭಗವದ್ಗೀತೆ

46. ಮಿಲ್ಲರ್ ಆಯೋಗವನ್ನು ರಚಿಸಿದವರು.
    a) ನಾಲ್ವಡಿ ಕೃಷ್ಣರಾಜ ಒಡೆಯರ್ b) ವಿಶ್ವೇಶ್ವರಯ್ಯ
    c) ಅರಸರು d) ರಾಜರು

47. ದೇವರು ಪ್ರತಿಯೊಂದನ್ನು ಜೋಪಾನ ಮಾಡುತ್ತಾನೆ ಎಂಬುದು ಇವರ ಅಭಿಪ್ರಾಯ.
    a) ಕನಕದಾಸರು b) ಪುರಂದರದಾಸರು
    c) ದಾಸರು d) ದೇವರು

48. ಮೆಗಾನೆ ಪರ್ವತದ ಒಟ್ಟು ಎತ್ತರ
    a) 5000 ಅಡಿ b) 4000 ಅಡಿ
    c) 3000 ಅಡಿ d) 2000 ಅಡಿ

49. ಇದೇನು ಆಕಾಶಕ್ಕೆ ಏಣಿಯೇ? ಬೆಟ್ಟದ ಮೇಲೊಂದು ಬಟ್ಟ ಇರುವಂತೆ ಇರುವುದೇ ____ ಪರ್ವತದ ವಿಶೇಷ.
    a) ಕುಣಬಿ b) ಗಿರಿಜನ
    c) ಸಹ್ಯಾದ್ರಿ d) ಹಿಮಾಲಯ

50. ನಮ್ಮ ಎರಡಡಕೆ, ನಿಮ್ಮ ಎರಡಡಕೆ ಜೋಡು ಮಾಡಯ್ಯ ಶಿವನೇ ಇದು ಲಕ್ಷ್ಮಮ್ಮನ ____ ಗೀತೆ.
    a) ಭಾವಗೀತೆ b) ಭಕ್ತಿಗೀತೆ
    c) ಚಲನಚಿತ್ರಗೀತೆ d) ಜನಪದ ಗೀತೆ

* * * * *

CBCS SCHEME

USN | | | | | | | | | |

BCHEC102/202

First/Second Semester B.E./B.Tech. Degree Examination,Dec.2025/Jan.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
Q.1	**a.**	Describe the manufacture of cement by wet method.	**7**	**L1**	**CO1**
	b.	Define Refractories. Mention the properties and applications of refractories materials.	**7**	**L2**	**CO1**
	c.	Explain the properties and applications of Iron and its alloys.	**6**	**L1**	**CO1**
		OR			
Q.2	**a.**	Describe the preparation of soda lime glass.	**7**	**L1**	**CO1**
	b.	Explaining the testing of cement by EDTA Method.	**7**	**L2**	**CO1**
	c.	Explain the properties and applications of aluminium and its alloys.	**6**	**L1**	**CO1**
		Module – 2			
Q.3	**a.**	Illustrate the construction and working of photovoltaic cell.	**7**	**L1**	**CO2**
	b.	Define Secondary Batteries. Explain the construction and working of Li-ion battery.	**7**	**L2**	**CO2**
	c.	Discuss the following types of corrosion i) Differential Metal corrosion ii) Differential Aeration Corrosion.	**6**	**L2**	**CO2**
		OR			
Q.4	**a.**	Explain the electrochemical corrosion of steel in concrete.	**7**	**L1**	**CO2**
	b.	Describe the following corrosion control methods: i) Galvanizing ii) Sacrificial Anode	**7**	**L2**	**CO2**
	c.	Explain the construction and working of methanol oxygen fuel cell.	**6**	**L1**	**CO2**

Module – 3					
Q.5	**a.**	Describe the estimation of chemical oxygen demand of sewage water solution.	**7**	**L1**	**CO3**
	b.	Explain the determination of total hardness by using EDTA solution.	**7**	**L1**	**CO3**
	c.	Define Nanomaterials. Explain the synthesis of Nanomaterials by Sol-gel method.	**6**	**L2**	**CO3**
OR					
Q.6	**a.**	Explain the size dependent properties of nanomaterials: i) Surface area ii) Catalytic property	**7**	**L1**	**CO3**
	b.	Write a note on carbon nanotubes. Mention its properties and applications of carbon nanotubes.	**7**	**L2**	**CO3**
	c.	Define COD. 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 sample used was 25 cm^3. Find the COD of the sample solution.	**6**	**L3**	**CO3**
Module – 4					
Q.7	**a.**	Explain the synthesis, properties and applications of chloropolyvinyl chloride.	**7**	**L1**	**CO4**
	b.	Explain the synthesis, properties and applications of nylon fibers.	**7**	**L1**	**CO4**
	c.	Mention the properties and applications of fiber reinforced polymer composites.	**6**	**L2**	**CO4**
OR					
Q.8	**a.**	Define Biodegradable Polymers. Explain the synthesis and applications of polylactic acid.	**7**	**L2**	**CO4**
	b.	Define the following terms: i) Addition Polymerization ii) Condensation Polymerization	**6**	**L1**	**CO4**
	c.	A polymer sample contains 1, 2, 3, and 4 molecules having molecular weights 1×10^5, 2×10^5, 3×10^5 and 4×10^5, respectively. Calculate the number average and weight average molecular weight of the polymer.	**7**	**L3**	**CO4**
Module – 5					
Q.9	**a.**	Define the following terms with examples: i) Phase ii) Component iii) Degrees of freedom	**7**	**L1**	**CO5**
	b.	With the help of neat phase diagram, describe the Lead-Silver system.	**7**	**L2**	**CO5**
	c.	Explain the determination of pH of soil sample using pH sensors.	**6**	**L2**	**CO5**
OR					
Q.10	**a.**	Illustrate the principle and instrumentation of potentiometric sensors.	**7**	**L1**	**CO5**
	b.	Describe the instrumentation and applications of conductometric sensors.	**7**	**L2**	**CO5**
	c.	What is Phase Rule? Explain the terms involved in it with examples.	**6**	**L1**	**CO5**

* * * * *

CBCS SCHEME

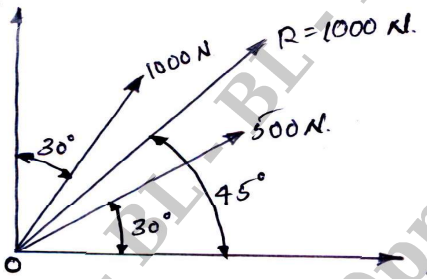
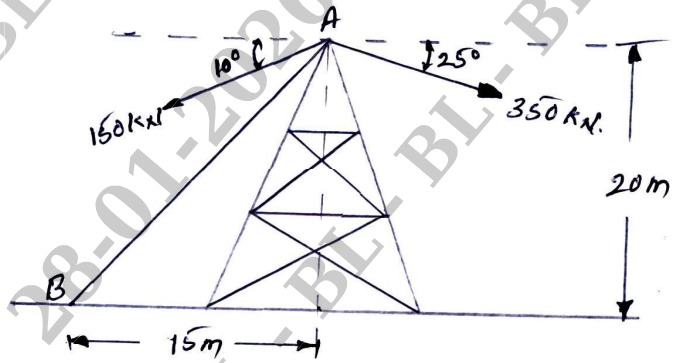
USN | | | | | | | | | | |

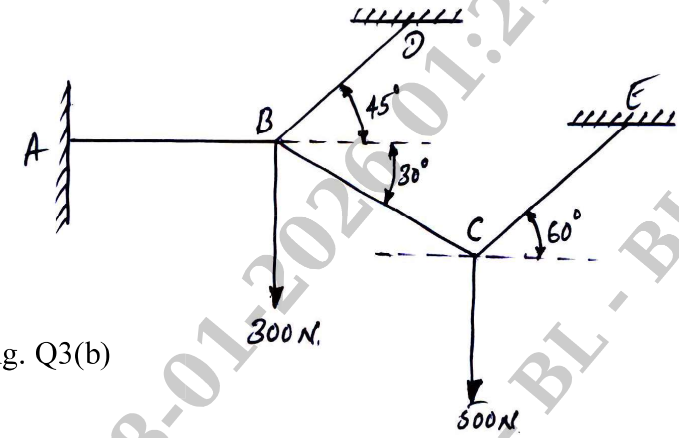
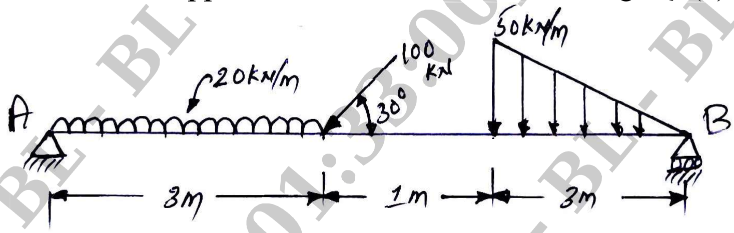
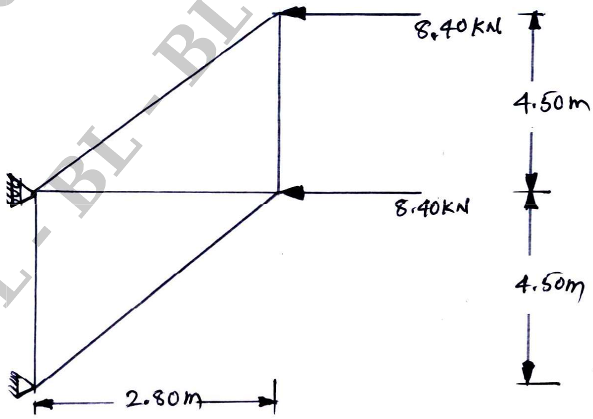
BCIVC103/203

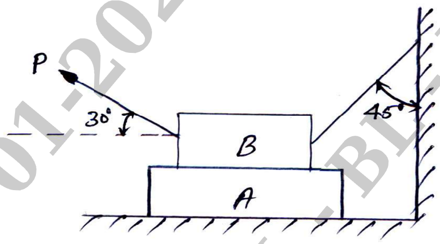
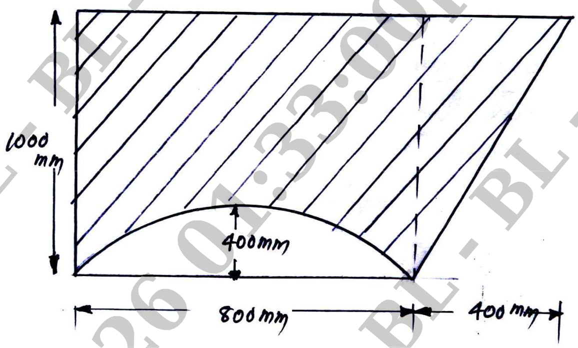
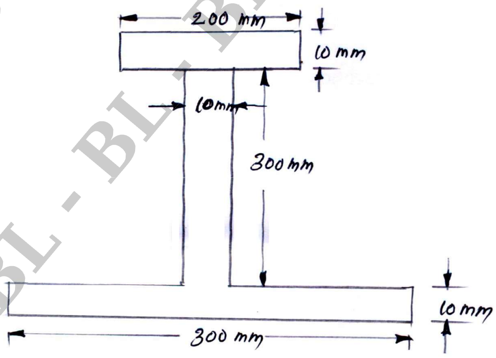
First/Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Engineering Mechanics

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 different types of force systems along with neat sketch.	10	L2	CO1
	b.	Two forces acting on a body are 500N and 1000N as shown in Fig. Q1(b). Determine the third force F such that resultant of all the three forces is 1000N directed at 45° to the x – axis.  Fig. Q1(b)	10	L3	CO1
		OR			
Q.2	a.	State and prove Varignon's theorem of moments.	10	L2	CO1
	b.	Two cables attached at the top of tower carries a guy cable AB. Determine the tension in the guy cable such that the resultant of the forces in all three cables acts vertically down. Also find the resultant force. Refer Fig. Q2(b).  Fig. Q2(b)	10	L3	CO1
		Module – 2			
Q.3	a.	With neat sketch, explain different types of beams and different types of supports.	10	L2	CO2

	b.	A system of cable in equilibrium condition under two vertical loads of 300N and 500N as shown in Fig. Q3(b). Determine the forces developed in each segments of the strings.  Fig. Q3(b)	**10**	**L3**	**CO2**
		OR			
Q.4	**a.**	State and prove Lami's theorem with neat sketch also mention the equation of equilibrium for the coplanar concurrent and coplanar Non – concurrent force system.	**10**	**L2**	**CO2**
	b.	Determine the reaction at the support for the beam as shown in Fig. Q4(b).  Fig. Q4(b)	**10**	**L3**	**CO2**
		Module – 3			
Q.5	**a.**	Explain the procedure to find forces in members by the method of joint and by the method of section.	**10**	**L3**	**CO3**
	b.	Determine the forces in each members of the truss shown in Fig. Q5(b) , using method of joints.  Fig. Q5(b)	**10**	**L3**	**CO3**

		OR			
Q.6	**a.**	Explain the terms : i) Angle of friction ii) Cone of friction iii) Coefficient of friction iv) Angle of repose v) Static friction	**10**	**L2**	**CO3**
	b.	Block A weighing 1.5 kN rests on a horizontal plane and supports another block weighing 500 N on top of it as shown in Fig. Q6(b). The block B is attached to a vertical wall by an inclined string, which makes an angle of 45° with the vertical. What should be the value of the force "P" acting at an angle of 30° to the horizontal to cause the motion of the lower block to impend? Take μ = 0.28 for all the surface.  Fig. Q6(b)	**10**	**L3**	**CO3**
		Module – 4			
Q.7	**a.**	Determine the centroid of the triangular area of base "b" and height "h" from the first principle.	**10**	**L3**	**CO4**
	b.	Locate the centroid of a shaded area as shown in Fig. Q7(b).  Fig. Q7(b)	**10**	**L4**	**CO4**
		OR			
Q.8	**a.**	State and prove Parallel Axis theorem.	**10**	**L3**	**CO4**
	b.	Determine the moment of inertia of the section about its centroidal axes (x – x and y – y) as shown in Fig. Q8(b).  Fig. Q8(b)	**10**	**L4**	**CO4**

Module – 5					
Q.9	**a.**	Define the following : i) Time of flight ii) Velocity iii) Acceleration iv) Displacement v) Acceleration due to gravity.	**10**	**L2**	**CO5**
	b.	A stone is dropped in to a well. After 4 seconds the sound of splash is heard. If the velocity of sound is 330 m/sec, find the depth of the well upto the water surface.	**10**	**L3**	**CO5**
OR					
Q.10	**a.**	State and explain D – Alembert's principle.	**8**	**L2**	**CO5**
	b.	A car starts from the rest and accelerates uniformly to a speed of 75 kmph over the distance of 1000 m. Find the acceleration of the car and time taken to attain this speed. If a further acceleration rises to the speed of 100 kmph in 10 seconds, find the new acceleration and further distance involved.	**12**	**L3**	**CO5**

* * * * *

CBCS SCHEME

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

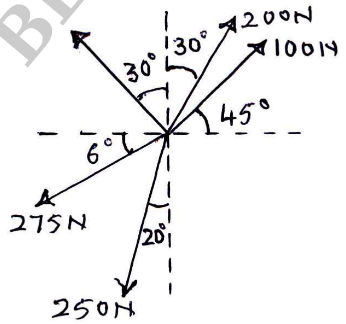
BESCK104A

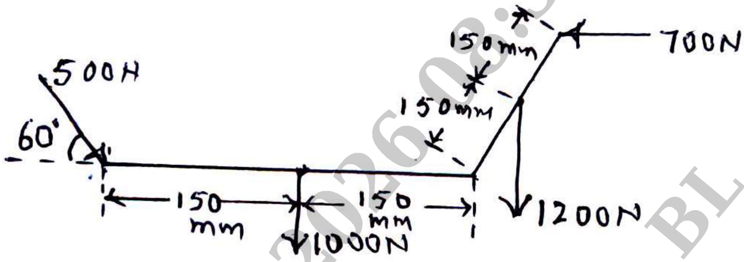
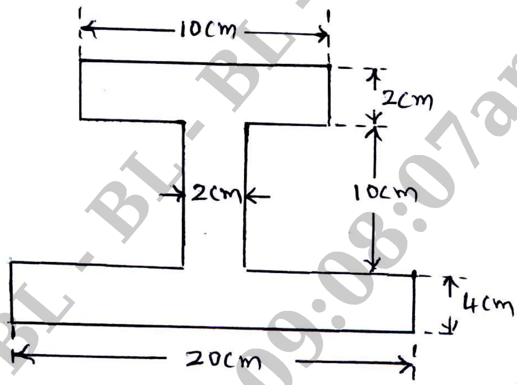
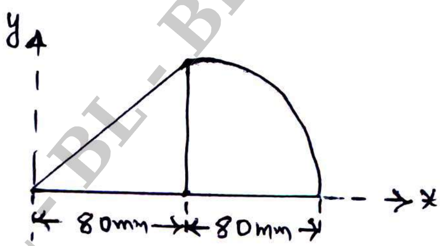
First Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

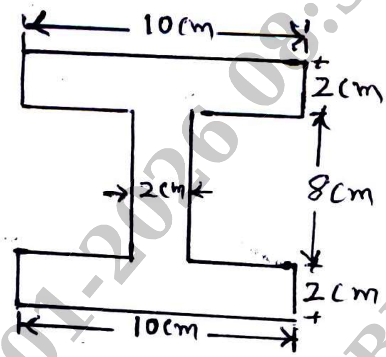
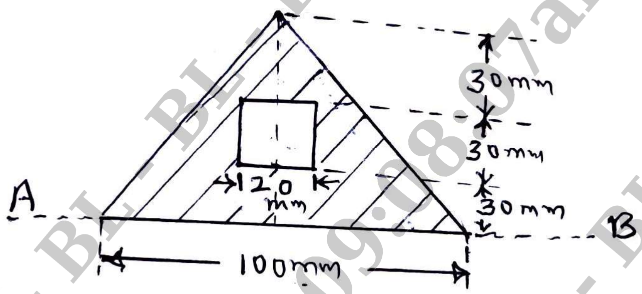
Introduction to Civil Engineering

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.**	Enumerate scope of following fields of Civil Engineering: i) Surveying ii) Structural Engineering ii) Transportation Engineering iv) Environmental Engineering	**10**	**L2**	**CO1**
	b.	Enumerate uses of following in Civil Engineering: i) Brick ii) Cement iii) Mortar iv) Reinforced Cement Concrete	**10**	**L2**	**CO1**
		OR			
Q.2	**a.**	Enumerate Structural Steel. Explain different types of steel used in Civil Engineering.	**10**	**L2**	**CO1**
	b.	Enumerate functions of following structural elements: i) Lintel ii) Chejja iii) Masonry wall iv) Column v) Staircase	**10**	**L2**	**CO1**
		Module – 2			
Q.3	**a.**	Enumerate briefly any ten sustainable development goals.	**10**	**L2**	**CO2**
	b.	Enumerate Smart City Concept. Explain core elements of smart city infrastructure.	**10**	**L2**	**CO2**
		OR			
Q.4	**a.**	Enumerate causes and effects of air pollution. What are the methods adopted for air pollution control.	**10**	**L2**	**CO2**
	b.	Enumerate with short notes on any two of the following : i) Solid Waste Management ii) Objectives of clean city concept iii) Energy efficient buildings iv) Temperature control in buildings v) Smart buildings	**10**	**L2**	**CO2**
		Module – 3			
Q.5	**a.**	Enumerate the parallelogram law of forces with proof.	**10**	**L2**	**CO3**
	b.	For the co-planar force system shown in Fig.Q5(b), determine the magnitude and direction of resultant force.  Fig.Q5(b)	**10**	**L3**	**CO3**

OR					
Q.6	**a.**	Enumerate Lami's Theorem with proof.	**10**	**L3**	**CO3**
	b.	Determine the resultant of forces acting on the bell crank shown in Fig.Q6(b).  Fig.Q6(b)	**10**	**L3**	**CO3**
Module – 4					
Q.7	**a.**	Derive the expression for centroid of a quarter circle of radius 'R'.	**10**	**L3**	**CO4**
	b.	Determine centroid of given area shown in Fig.Q7(b).  Fig.Q7(b)	**10**	**L3**	**CO4**
OR					
Q.8	**a.**	Derive the expression for centroid of a triangle of base width 'b' and height 'h'.	**10**	**L3**	**CO4**
	b.	Determine centroid of plane shown in Fig.Q8(b).  Fig.Q8(b)	**10**	**L3**	**CO4**

Module – 5					
Q.9	**a.**	Derive the expression for moment of inertia of a circle of radius 'R'.	**10**	**L3**	**CO5**
	b.	Determine moment of inertia and radius of gyration of the section shown in Fig.Q9(b) about centroidal XX and YY axis.  Fig.Q9(b)	**10**	**L3**	**CO5**
OR					
Q.10	**a.**	Derive the expression for moment of inertia semicircle of radius 'R'.	**10**	**L3**	**CO5**
	b.	Determine the radius of gyration of shaded area shown in Fig.Q10(b) about AB-axis.  Fig.Q10(b)	**10**	**L3**	**CO5**

* * * * *

CBCS SCHEME

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

BMATC101

First Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Mathematics – I 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.**	With usual notations, prove that $\tan\phi = r\dfrac{d\theta}{dr}$	**06**	**L2**	**CO1**
	b.	Show that the curves $r = a(1 + \cos\theta)$ and $r = a(1 - \cos\theta)$ cut each other orthogonally.	**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**	**L3**	**CO1**
		OR			
Q.2	**a.**	Derive an expression for the radius of curvature in the Cartesian form as : $\rho = \dfrac{(1+y_1^2)^{3/2}}{y_2}$	**08**	**L2**	**CO1**
	b.	Find the pedal equation of the curve $r^n = a^n \cos n\theta$	**07**	**L2**	**CO1**
	c.	Using modern mathematical tool, write a program/code to plot the curve $r = 2\,\lvert\cos 2\theta\rvert$	**05**	**L3**	**CO5**
		Module – 2			
Q.3	**a.**	Expand $\log(1 + \cos x)$ by Maclaurin's series upto the term containing x^4.	**06**	**L2**	**CO2**
	b.	If $u = f(2x - 3y, 3y - 4z, 4z + 2x)$, show that $6\dfrac{\partial u}{\partial x} + 4\dfrac{\partial u}{\partial y} + 3\dfrac{\partial u}{\partial z} = 0$	**07**	**L2**	**CO2**
	c.	Find the extreme values of $f(x, y) = x^3 + y^3 - 3x - 12y + 20$	**07**	**L3**	**CO2**
		OR			
Q.4	**a.**	If $z = e^{ax+by} f(ax - by)$, prove that $b\dfrac{\partial z}{\partial x} + a\dfrac{\partial z}{\partial y} = 2abz$	**08**	**L2**	**CO2**
	b.	If $u = x + 3y^2 - z^3$, $v = 4x^2yz$, $w = 2z^2 - xy$ find $\dfrac{\partial(u,v,w)}{\partial(x,y,z)}$ at $(1, -1, 0)$	**07**	**L2**	**CO2**
	c.	Using modern mathematical tool, write a program to evaluate $\lim\limits_{x\to\infty}\left(1+\dfrac{1}{x}\right)^x$	**05**	**L3**	**CO1**

		Module – 3			
Q.5	**a.**	Solve $\dfrac{dy}{dx}+\dfrac{y}{x}=x^2y^6$	**06**	**L2**	**CO3**
	b.	Find the orthogonal trajectories of the family of curves $r^n = a^n \cos n\theta$, where 'a' is a parameter.	**07**	**L3**	**CO3**
	c.	Solve, $xyp^2 - (x^2 + y^2)p + xy = 0$.	**07**	**L2**	**CO3**
		OR			
Q.6	**a.**	Solve $\left(4xy+3y^2-x\right)dx+x\left(x+2y\right)dy=0$	**06**	**L2**	**CO3**
	b.	If the temperature of the air is 30°C and a metal ball cools from 100°C to 70°C in 15 minutes, find how long will it take for the metal ball to reach the temperature of 40°C?	**07**	**L3**	**CO3**
	c.	Find the general solution of $xp^2 + xp - yp + 1 - y = 0$ by Clairaut's equation. Also find the singular solution.	**07**	**L2**	**CO3**
		Module – 4			
Q.7	**a.**	Solve $(4D^4 - 4D^3 - 23D^2 + 12D + 36)\,y = 0$	**06**	**L2**	**CO3**
	b.	Solve $y''+3y'+2y=12x^2$	**07**	**L2**	**CO3**
	c.	Solve $(2x+1)^2\dfrac{d^2y}{dx^2}-2(2x+1)\dfrac{dy}{dx}-12y=3(2x+1)$	**07**	**L2**	**CO3**
		OR			
Q.8	**a.**	Solve $\dfrac{d^2y}{dx^2}-4y=\cosh(2x-1)+3^x$	**06**	**L2**	**CO3**
	b.	Solve by the method of variation of parameters $(D^2 + 4)y = \tan 2x$.	**07**	**L2**	**CO3**
	c.	Solve $x^2\dfrac{d^2y}{dx^2}-4x\dfrac{dy}{dx}+6y=\cos(2\log x)$	**07**	**L2**	**CO3**
		Module – 5			
Q.9	**a.**	Find the rank of the matrix $\begin{bmatrix}4&0&2&1\\2&1&3&4\\2&3&4&7\\2&3&1&4\end{bmatrix}$	**06**	**L2**	**CO4**
	b.	Solve the system of equations by Gauss – Jordon method $2x + 5y + 7z = 52$; $2x + y - z = 0$; $x + y + z = 9$	**07**	**L3**	**CO4**
	c.	Using Rayleigh's power method, find the dominant eigen value and the corresponding eigen vector of $\begin{bmatrix}2&0&1\\0&2&0\\1&0&2\end{bmatrix}$ by taking $[1\ 0\ 0]^T$ as the initial eigen vector. [Carry out 6 iterations].	**07**	**L3**	**CO4**
		OR			
Q.10	**a.**	Solve the system of equations by Gauss – Elimination Method $x + y + z = 9$, $x - 2y + 3z = 8$, $2x + y - z = 3$	**07**	**L2**	**CO4**
	b.	Solve the system of equations $2x - 3y + 20z = 25$; $20x + y - 2z = 17$, $3x + 20y - z = -18$, using Gauss – Seidel method, taking (0, 0, 0) as an initial approximation. [Carry out 3 iterations].	**08**	**L3**	**CO4**
	c.	Using modern mathematical tool, write a program/code to test the consistency of the equations $x + 2y - z = 1$, $2x + y + 4z = 2$, $3x + 3y + 4z = 1$	**05**	**L3**	**CO5**

CBCS SCHEME

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

BMATC201

Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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 by changing the order of integration $\int_{0}^{\infty}\int_{x}^{\infty}\frac{e^{-y}}{y}\,dy\,dx$.	**7**	**L3**	**CO1**
	c.	Derive the relation $\beta(m,n)=\frac{\Gamma m.\Gamma n}{\Gamma(m+n)}$.	**6**	**L2**	**CO1**
		OR			
Q.2	**a.**	Evaluate $\int_{0}^{1}\int_{0}^{\sqrt{1-x^2}} xy\,e^{x^2}\,dy\,dx$.	**7**	**L3**	**CO1**
	b.	Evaluate $\int_{0}^{a}\int_{0}^{\sqrt{a^2-x^2}} y^2\sqrt{x^2+y^2}\,dy\,dx$ by changing to polar coordinates .	**7**	**L3**	**CO1**
	c.	Write a modern mathematical tool program to evaluate the integral, $\int_{0}^{3}\int_{0}^{3-x}\int_{0}^{3-x-y}(xyz)\,dz\,dy\,dx$.	**6**	**L3**	**CO5**
		Module – 2			
Q.3	**a.**	If $\vec{r}=x\hat{i}+y\hat{j}+z\hat{k}$, show that (i) $\nabla.\vec{r}=3$, (ii) $\nabla\times\vec{r}=0$ (iii) $\nabla r^n=nr^{n-2}.\vec{r}$, where $\lvert\vec{r}\rvert=r$.	**7**	**L2**	**CO2**
	b.	If $\vec{f}=grad(x^3+y^3+z^3-3xyz)$ find $div\,\vec{f}$ and $curl\,\vec{f}$.	**7**	**L2**	**CO2**
	c.	Define solenoidal vector. If $V=W\times\vec{r}$ and W is a constant vector show that $W=\frac{1}{2}curl V$.	**6**	**L2**	**CO2**

		OR			
Q.4	**a.**	Find the total work done by the force $\vec{F} = 3x^2\hat{i} + (2xz - y)\hat{j} + z\hat{k}$ in moving a particle along the curve $x^2 = 4y,\ 3x^2 = 8z$ from x = 0 to x = 2.	7	L3	CO2
	b.	Use Stokes theorem, evaluate $\int_C \left[(2x - y)dx - yz^2dy - y^2zdz\right]$ were C is the circle $x^2 + y^2 = 1$ corresponds to the surface of sphere of unit radius.	7	L3	CO2
	c.	Write the modern mathematical tool program to find the gradient of x^2yz.	6	L2	CO5
		Module – 3			
Q.5	**a.**	Form the partial differential equation from the relation, $z = ax + by + cxy$ by eliminating arbitrary constants.	7	L2	CO3
	b.	Solve $(mz - ny)p + (nx - lz)q = ly - mx$.	7	L3	CO3
	c.	Derive one dimensional wave equation.	6	L2	CO3
		OR			
Q.6	**a.**	Form a partial differential equation by eliminating the arbitrary functions ϕ and ψ from the relation $z = x\phi(y) + y\psi(x)$.	7	L2	CO3
	b.	Solve $\frac{\partial^2 z}{\partial x^2} - 2\frac{\partial z}{\partial x} + 5z = 0$ given that $z = e^y$ and $\frac{\partial z}{\partial x} = 0$ when x = 0.	7	L3	CO3
	c.	Derive one dimensional heat equation.	6	L3	CO3
		Module – 4			
Q.7	**a.**	Find the real root of the equation $\cos x = 3x - 1$ that lies between 0.5 and 1, using Regula-falsi method.	7	L3	CO4
	b.	The area y of circle for different diameters x are given below : x: 80, 85, 90, 95, 100 y: 5026, 5674, 6362, 7088, 7854 Calculate the area when x = 98.	7	L3	CO4
	c.	Evaluate $\int_0^1 \frac{x}{1+x^2}dx$ by using Simpson's $\left(\frac{1}{3}\right)^{rd}$ rule.	6	L3	CO4
		OR			
Q.8	**a.**	Find the real root of the equation $x\log_{10}(x) = 1.2$ the approximate root near 2.5, using Newton-Raphson method.	7	L2	CO4

Table for Q.7 b:

x	80	85	90	95	100
y	5026	5674	6362	7088	7854

	b.	Using Lagrange's method to find the value for x = 6 from the following table: <table><tr><td>x</td><td>3</td><td>7</td><td>9</td><td>10</td></tr><tr><td>f(x)</td><td>168</td><td>120</td><td>72</td><td>63</td></tr></table>	**7**	**L3**	**CO4**
	c.	Given <table><tr><td>x</td><td>4.0</td><td>4.2</td><td>4.4</td><td>4.6</td><td>4.8</td><td>5.0</td><td>5.2</td></tr><tr><td>logx</td><td>1.3863</td><td>1.4351</td><td>1.4816</td><td>1.5261</td><td>1.5686</td><td>1.5686</td><td>1.6487</td></tr></table>Evaluate $\int_4^{5.2} \log x dx$ by Simpson's $\frac{3}{8}^{th}$ rule.	**6**	**L3**	**CO4**
		Module – 5			
Q.9	**a.**	Find an approximate value of y when x = 0.2. If $\frac{dy}{dx} = x^2 + y^2$ and y = 1 when x = 0 using Taylor's method.	**7**	**L3**	**CO4**
	b.	By Runge Kutta method of order 4 solve the equation $\frac{dy}{dx} = 3x + \left(\frac{y}{2}\right)$ with y(0) = 1 for y(0.1).	**7**	**L3**	**CO4**
	c.	Given $\frac{dy}{dx} = x^2 + \left(\frac{y}{2}\right)$ for y(1) = 2, y(1.1) = 2.2156, y(1.2) = 2.4649 and y(1.3) = 2.7514 find y at 1.4 using Milines predictor-corrector method.	**6**	**L3**	**CO4**
		OR			
Q.10	**a.**	Use modified Eulers method to solve $\frac{dy}{dx} = x + \sqrt{y}$ in the range $0.2 \le x \le 0.6$ taking h = 0.2 given that $y = 1$ at x = 0.	**7**	**L3**	**CO4**
	b.	Using Runge-Kutta method, find the solution of the equation, $\frac{dy}{dx} = \frac{y-x}{y+x}$, y(0) = 1 at the point x = 0.1.	**7**	**L3**	**CO4**
	c.	Write modern mathematical tool program to solve $\frac{dy}{dx} = x - y^2$, y(0) = 1 by Runge-Kutta 4th order method, find y(0.1).	**6**	**L2**	**CO5**

* * * * *

CBCS SCHEME

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

BMATE101

First Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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.
3. VTU Formula Hand book is permitted.

		Module – 1	**M**	**L**	**C**
Q.1	**a.**	Derive the radius of curvature in Cartesian form.	**6**	**L2**	**CO1**
	b.	Find the angle between the curves $r = \sin\theta + \cos\theta$, $r = 2\sin\theta$.	**7**	**L2**	**CO1**
	c.	Find the radius of curvature for the Folium of De-Cartes $x^3 + y^3 = 3axy$ at the point $\left(\frac{3a}{2}, \frac{3a}{2}\right)$ on it.	**7**	**L2**	**CO1**
		OR			
Q.2	**a.**	Show that the curves $r^2 \sin 2\theta = a^2$ and $r^2 \cos 2\theta = b^2$ to cut each other orthogonally.	**8**	**L2**	**CO1**
	b.	Find the pedal equation of the curve $\frac{2a}{r} = 1 + \cos\theta$	**7**	**L2**	**CO1**
	c.	Using modern Mathematical tool write a programme/code to plot sine and cosine curves.	**5**	**L3**	**CO5**
		Module – 2			
Q.3	**a.**	Using Maclaurin's series, Prove that $\sqrt{1+\sin 2x} = 1 + x - \frac{x^2}{2} - \frac{x^3}{6} + \frac{x^4}{24} \ldots\ldots$	**6**	**L2**	**CO1**
	b.	If $u = e^{ax+by} f(ax - by)$, prove that $b\frac{\partial u}{\partial x} + a\frac{\partial u}{\partial y} = 2abu$.	**7**	**L2**	**CO1**
	c.	Find the Jacobian of u, v, w with respect to x, y, z given $u = x + y + z$, $v = y + z$, $w = z$.	**7**	**L2**	**CO1**
		OR			
Q.4	**a.**	Evaluate $\lim_{x \to 0}\left[\frac{a^x + b^x + c^x}{3}\right]^{\frac{1}{x}}$	**8**	**L2**	**CO1**
	b.	If $u = \frac{yz}{x}$, $v = \frac{zx}{y}$, $w = \frac{xy}{z}$, show that $\frac{\partial(x,y,z)}{\partial(u,v,w)} = 4$.	**7**	**L2**	**CO1**
	c.	Using modern mathematical tool write a programme/code to evaluate $\lim_{x \to \infty}\left(1+\frac{1}{x}\right)^x$.	**5**	**L3**	**CO5**

		Module – 3			
Q.5	a.	Solve : $r\sin\theta - \cos\theta\,\dfrac{dr}{d\theta} = r^2$.	6	L2	CO2
	b.	An inductance 2 henry (H) and a resistance 20 ohms (Ω) are connected in series with emf E volts. If the current is initially zero when t = 0, find the current at the end of 0.01 seconds if E = 100 V.	7	L3	C2
	c.	Show that the equation $xp^2 + px - py + 1 = 0$ is Clairaut's equation. Hence obtain the general and singular solution.	7	L3	CO2
		OR			
Q.6	a.	Solve : $\dfrac{x^3dy}{dx} - x^2y = -y^4\cos x$.	6	L2	CO2
	b.	Find the orthogonal trajectories of the family of curves $\dfrac{x^2}{a^2} + \dfrac{y^2}{b^2+\lambda} = 1$, where λ is the parameter.	7	L3	CO2
	c.	Solve the equation $(px - y)(py + x) = 2p$ by reducing into Clairaut's form taking the substitution on $X = x^2$, $Y = y^2$.	7	L2	CO2
		Module – 4			
Q.7	a.	Evaluate $\int_{-c}^{c}\int_{-b}^{b}\int_{-a}^{a}(x^2+y^2+z^2)\,dx\,dy\,dz$.	6	L2	CO3
	b.	Evaluate $\iint_A xy\,dx\,dy$, where A is the domain bounded by x – axis, ordinate $x = 2a$ and the curve $x^2 = 4ay$.	7	L2	CO3
	c.	Show that $\Gamma\left(\frac{1}{2}\right) = \sqrt{\pi}$.	7	L2	CO3
		OR			
Q.8	a.	Evaluate $\iint_R xy\,dx\,dy$, over the positive quadrant of the circle $x^2 + y^2 = a^2$.	6	L2	CO3
	b.	Evaluate: $\int_1^e\int_1^{\log y}\int_1^{e^x}\log z\,dz\,dx\,dy$.	7	L2	CO3
	c.	Evaluate $\int_0^1 x^m(1-x)^p\,dx$ interms of gamma functions and hence evaluate $\int_0^1 x^5(1-x^3)^{10}\,dx$.	7	L2	CO3

Module – 5					
Q.9	**a.**	Find the Rank of the matrix : $\begin{bmatrix} 0 & 2 & 3 & 4 \\ 2 & 3 & 5 & 4 \\ 4 & 8 & 13 & 12 \end{bmatrix}$	**6**	**L2**	**CO4**
	b.	Test for consistency and solve : $x + y + z = 6$, $x - y + 2z = 5$, $3x + y + z = 8$.	**7**	**L3**	**CO4**
	c.	Employ Gauss – Seidel iteration method to solve $5x + 2y + z = 12$, $x + 4y + 2z = 15$, $x + 2y + 5z = 20$. Carry out 4 iterations taking the initial approximation to the solution as (1, 0, 3)	**7**	**L3**	**CO4**
		OR			
Q.10	**a.**	Apply Gauss – Jordan method to solve the following system of equations : $2x_1 + x_2 + 3x_3 = 1$, $4x_1 + 4x_2 + 7x_3 = 1$, $2x_1 + 5x_2 + 9x_3 = 3$	**8**	**L2**	**CO4**
	b.	Investigate the values of λ and μ such that the system of equations $x + y + z = 6$, $x + 2y + 3z = 10$, $x + 2y + \lambda z = \mu$ may have i) Unique solution ii) Infinite solution iii) No Solution.	**7**	**L2**	**CO4**
	c.	Using Modern Mathematical tool write a programme/code to find a largest eigen value $A = \begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$ by power method.	**5**	**L3**	**CO5**

* * * * *

CBCS SCHEME

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

BMATEC301/BEC301/BBM301

Third Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
AV Mathematics – III for EC/BM 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.
3.Use of Statistical tables and Mathematical handbook is permitted.

		Module – 1	M	L	C
Q.1	**a.**	Compute the constant term and first harmonics in the Fourier series for f(x) given by the following data: x: 0, 60, 120, 180, 240, 300, 360 f(x): 1.0, 1.4, 1.9, 1.7, 1.5, 1.2, 1.0	**07**	**L3**	**CO1**
	b.	Obtain a Fourier series for $f(x) = x^3$ in $(-\pi, \pi)$	**07**	**L2**	**CO1**
	c.	Find the Fourier half-range cosine series of the function $f(x) = (x-1)^2$ in $(0, 1)$.	**06**	**L2**	**CO1**
		OR			
Q.2	**a.**	Find the Fourier series of $f(x) = x + x^2$ in $(-\pi, \pi)$. Hence deduce that $\frac{\pi^2}{12} = \frac{1}{1^2} - \frac{1}{2^2} + \frac{1}{3^2} - \ldots\ldots$	**07**	**L2**	**CO1**
	b.	Obtain a Fourier series expansion of $f(x) = \begin{cases} \pi x, & 0 \le x \le 1 \\ \pi(2-x), & 1 \le x \le 2 \end{cases}$	**07**	**L2**	**CO1**
	c.	For the periodic function f(x) of period 6 specified by the following table over the interval (0, 6), find the Fourier coefficients a_0 , a_1 and b_1. x: 0, 1, 2, 3, 4, 5, 6 f(x): 9, 18, 24, 28, 26, 20, 9	**06**	**L3**	**CO1**
		Module – 2			
Q.3	**a.**	Find the Fourier transform of $f(x) = \begin{cases} a^2 - x^2, & \lvert x \rvert \le a \\ 0, & \lvert x \rvert > a \end{cases}$ where 'a' is positive constant. Hence evaluate $\int_0^\infty \frac{\sin x - x\cos x}{x^3} dx = \frac{\pi}{4}$	**07**	**L2**	**CO2**
	b.	Find the Fourier sine transform of $f(x) = e^{-\lvert x \rvert}$. Hence evaluate $\int_0^\infty \frac{\sin mx}{1+x^2} dx$; $m > 0$	**07**	**L2**	**CO2**
	c.	Find the Discrete Fourier Transform (DFT) of a sequence X(n) = {1,1,0,0} and find the IDFT of $\tau(k) = \{1\ 0\ 1\ 0\}$	**06**	**L3**	**CO2**

		OR			
Q.4	**a.**	Find the Fourier transform of the function $f(x)=\begin{cases}1, & \text{for } \lvert x\rvert \le a\\ 0, & \text{for } \lvert x\rvert > a\end{cases}$ Hence evaluate $\int_0^{\infty}\frac{\sin x}{x}dx$	**07**	**L2**	**CO2**
	b.	Find the Fourier sine and cosine transform of $f(x)=\begin{cases}x, & 0<x<2\\ 0, & \text{else where}\end{cases}$	**07**	**L2**	**CO2**
	c.	Solve the Integral equation of $\int_0^{\infty} f(\theta)\cos\alpha\theta\, d\theta=\begin{cases}1-\alpha, & 0\le\alpha\le 1\\ 0, & \alpha>1\end{cases}$ Hence evaluate $\int_0^{\infty}\frac{\sin^2 t}{t^2}dt$	**06**	**L3**	**CO2**
		Module – 3			
Q.5	**a.**	Find the z-transforms of $(2n-1)^2 + \sin 3n$.	**06**	**L1**	**CO3**
	b.	Find the inverse z-transform of $\frac{3z^2+2z}{(5z-1)(5z+2)}$	**07**	**L3**	**CO3**
	c.	Using z-transforms, solve the difference equation $y_{n+2}-5y_{n+1}+6y_n=2$; $y_0=0$; $y_1=7$	**07**	**L3**	**CO3**
		OR			
Q.6	**a.**	Find the z-transforms of $\cos\left[\frac{n\pi}{2}+\frac{\pi}{4}\right]$	**06**	**L1**	**CO3**
	b.	Obtain the inverse z-transform of $\frac{4z^2-2z}{(z-1)(z-2)^2}$	**07**	**L3**	**CO3**
	c.	If $\bar{y}(z)=\frac{2z^2+3z+12}{(z-1)^4}$, evaluate u_2.	**07**	**L3**	**CO3**
		Module – 4			
Q.7	**a.**	Solve : $\frac{d^2y}{dx^2}+y=\cos 2x$	**06**	**L2**	**CO4**
	b.	Solve : $\frac{d^2y}{dx^2}-4\frac{dy}{dx}+3y=(e^x+1)^2$	**07**	**L2**	**CO4**
	c.	Solve : $x^3\frac{d^3y}{dx^3}+3x^2\frac{d^2y}{dx^2}+x\frac{dy}{dx}=\log x$	**07**	**L3**	**CO4**

OR

Q.8	**a.**	Solve : $[D^2 - 4D + 4]y = e^{2x} + x$	**06**	**L2**	**CO4**
	b.	Solve : $(1+x)^2 y'' + (1+x)y' + y = 2\sin[\log(1+x)]$	**07**	**L3**	**CO4**
	c.	In an LCR circuit, the charge q on a plate of a condenser is given by $L\frac{d^2q}{dt^2} + R\frac{dq}{dt} + \frac{q}{c} = E\sin pt$ Solve the above equation.	**07**	**L3**	**CO4**

Module – 5

Q.9 a. Find the equation of the least fitting straight line y = ax + b for the following data: — **06 L2 CO5**

x	5	10	15	20	25
y	16	19	23	26	30

b. Compute the coefficient of correlation and the equations of the lines of regression for the data: — **07 L3 CO5**

x	1	2	3	4	5
y	2	5	3	8	7

c. Ten competitors in a beauty contest are ranked by two Judges A and B in the following data: — **07 L3 CO5**

ID No.	1	2	3	4	5	6	7	8	9	10
Judge A	1	6	5	10	3	2	4	9	7	8
Judge B	6	4	9	8	1	2	3	10	5	7

Calculate the rank correlation coefficient.

OR

Q.10 a. Fit a parabola of second degree $y = a + bx + cx^2$ for the data — **06 L2 CO5**

x	0	1	2	3	4
y	1	1.8	1.3	2.5	2.3

b. The lines of regression are 2x + 3y + 1 = 0 , x + 6y – 4 = 0. Compute $\bar{x}$, $\bar{y}$ and 'r'. — **07 L3 CO5**

c. Compute the rank correlation coefficient for the following data: — **07 L3 CO5**

x	78	36	98	25	75	82	90	62	65	39
y	84	51	91	60	68	62	86	58	53	47

* * * * *

CBCS SCHEME

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

BMATE201

Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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 directional derivative of $\phi = 4xz^3 - 3x^2y^2z$ at (2, -1, 2) along $2i - 3j + 6k$.	7	L2	CO1
	b.	If $\vec{F} = \nabla(xy^3z^2)$ find $div\,\vec{F}$ and $curl\,\vec{F}$ at the point (1, -1, 1).	7	L2	CO1
	c.	Show that $\vec{A} = (\sin y + z)i + (x\cos y - z)j + (x - y)k$ is irrotational. Also find the scalar function ϕ such that $\vec{A} = \nabla\phi$.	6	L2	CO1
		OR			
Q.2	a.	Find the total work done in moving a particle in a force field $\vec{F} = 3xyi - 5zj + 10xk$ along the curve : $x = t^2 + 1$, $y = 2t^2$, $z = t^3$, from t = 1 to t = 2.	7	L2	CO1
	b.	Evaluate Green's theorem in a plane $\oint_C (3x^2 - 8y^2)dx + (4y - 6xy)dy$ where C is the boundary of the region enclosed by $y = \sqrt{x}$, $y = x^2$	7	L3	CO2
	c.	Using modern mathematical tools, write a code to find the divergence of. $\vec{F} = x^2yi + yz^2j + x^2zk$.	6	L3	CO5
		Module – 2			
Q.3	a.	Define Subspace, prove that the set, $W = \{(x_1, x_2, x_3) \mid 7x_1 - x_2 = 0 \text{ and } x_1, x_2, x_3 \in IR\}$ is a subspace of V_3(IR).	7	L2	CO3
	b.	Define a basis for a vector space. Find the basis and dimension of the subspace spanned by the vectors (2, 4, 2), (1, -1, 0), (1, 2, 1) and (0, 3, 1) in V_3(IR).	7	L2	CO3
	c.	If T : $IR^2 \to IR^2$ defined by T(x, y) = (3x+2y, 3x-4y), verify whether T is a linear transformation or not.	6	L2	CO3

OR					
Q.4	**a.**	Define linearly independent and linearly dependent set of vectors. Show that the vectors (0, 2, -4), (1, -2, -1) and (1, -4, 3) are linearly dependent in V_3(IR).	**7**	**L2**	**CO2**
	b.	State the Rank-Nullity theorem. Determine the range and Kernel of the linear transformation T : V_2(IR) $\to$ V_3(IR) defined by T(x, y) = (x, x+y, y).	**7**	**L2**	**CO2**
	c.	Using the modern mathematical tool, write the code to represent the rotation transformation T : $IR^2 \to IR^2$ and find the image of vector (10, 0), when it is rotated by $\frac{\pi}{2}$ radians.	**6**	**L3**	**CO5**
Module – 3					
Q.5	**a.**	Find the Laplace transform of, (i) $e^{2t}\cos^2 t$ (ii) $\frac{\cos 2t - \cos 3t}{t}$	**7**	**L2**	**CO3**
	b.	Find the Laplace transform of the triangular wave function, $f(t) = \begin{cases} t, & \text{if } 0 \le t \le a \\ 2a - t, & if\ a \le t \le 2a \end{cases}$.	**7**	**L2**	**CO3**
	c.	Express the function, $f(t) = \begin{cases} \cos t, & 0 < t < \pi \\ 1, & \pi < t \le 2\pi \\ \sin t, & t > 2\pi \end{cases}$ in terms of Unit step function and find it Laplace transform.	**6**	**L2**	**CO3**
OR					
Q.6	**a.**	Find the inverse Laplace transform of, i) $\frac{s+5}{s^2 - 6s + 13}$ ii) $\frac{1}{2}\log\left(\frac{s^2+b^2}{s^2+a^2}\right)$	**7**	**L2**	**CO3**
	b.	Using the convolution theorem, find $L^{-1}\left(\frac{s}{(s^2+a^2)^2}\right)$.	**7**	**L3**	**CO3**
	c.	Solve the Differential equation : $y'' + 4y' + 4y = e^{-t}$, given that y(0) = $y'(0)$ =0 using Laplace transforms.	**6**	**L3**	**CO3**
Module – 4					
Q.7	**a.**	Use the Regula Falsi method to find a real root of $x\log_{10} x - 1.2 = 0$ Correct to three decimal places.	**7**	**L2**	**CO4**

b. Using suitable Newton's interpolation formula find the number of students who have obtained,
i) Less than 45 marks
ii) Between 40 and 45 marks. Given

Marks	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80
No. of Students	31	42	51	35	31

(7, L2, CO4)

c. Apply Lagrange's interpolation formula, to find y when x = 2 given that,

x	1	3	4	6
y	4	40	85	259

(6, L2, CO4)

OR

Q.8

a. By Newton-Raphson method, find the root of the equation $x\sin x+\cos x=0$ that lies near to x = π. (7, L2, CO4)

b. Fit an interpolating polynomial for the given data by using Newton's divided difference formula,

x :	2	4	9	10
f(x) :	4	56	711	980

(7, L2, CO4)

c. Evaluate $\int_0^{0.6} e^{-x^2}dx$ using Simpson's $\left(\frac{1}{3}\right)^{rd}$ rule by taking 7 ordinates. (6, L2, CO4)

Module – 5

Q.9

a. Use Taylor's series method to find y(0.1) by considering terms upto 4th degree, given $\frac{dy}{dx}=x-y^2$, y(0) = 1. (7, L2, CO4)

b. Using Runge-Kutta method of order 4 find y at x = 0.1, from $\frac{dy}{dx}=\frac{y-x}{y+x}$, y(0) = 1, taking h = 0.1. (7, L2, CO4)

c. Applying Milne's Predictor-Corrector method find y(0.4), given $\frac{dy}{dx}=2e^x-y$, y(0) = 2, y(0.1) = 2.010, y(0.2) = 0.040 and y(0.3) = 2.090. (6, L2, CO4)

OR

Q.10

a. Using modified Euler's method find y at x = 0.2 given that $\frac{dy}{dx}=3x+\frac{y}{2}$, with y(0) = 1 taking h = 0.1. (7, L2, CO4)

b. Using the Runge-Kutta method of fourth order find y(0.1) given that $\frac{dy}{dx}=3e^X+2y$, y(0) = 0 taking h = 0.1. (7, L2, CO4)

c. Using modern mathematical tools, write the code to find the solution of $\frac{dy}{dx}=x^2+\frac{y}{2}$ at y(1.4). Given that y(1) = 2, y(1.1) = 2.2156, y(1.2) = 2.4649, y(1.3) = 2.7514. (6, L3, CO5)

* * * * *

CBCS SCHEME

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

BMATM101

First Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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.**	Show that pair of polar curves $r = a(1 + \sin\theta)$ and $r = a(1 - \sin\theta)$ intersect orthogonally.	**06**	**L2**	**CO1**
	b.	Find the pedal equation for the equiangular spiral $r = ae^{\theta\cot\alpha}$, where a and α are constants.	**07**	**L2**	**CO1**
	c.	Find the radius of curvature for the curve $y = a\log[\sec(x/a)]$.	**07**	**L2**	**CO1**
		OR			
Q.2	**a.**	Derive the radius of curvature for Cartesian curve $y = f(x)$ in the form $\rho = \frac{(1+y_1^2)^{3/2}}{y_2}$	**06**	**L3**	**CO1**
	b.	Find the angle between the curves $r = a(1 - \cos\theta)$ and $r = 2a\cos\theta$	**07**	**L2**	**CO1**
	c.	Using modern mathematical tool, write a program/code to plot the curve $r = 2\lvert\cos 2\theta\rvert$.	**07**	**L2**	**CO1**
		Module – 2			
Q.3	**a.**	Expand $f(x) = \sin x + \cos x$ in the powers of x by Maclaurin's theorem upto x^4.	**06**	**L2**	**CO2**
	b.	If $u = f\left(\frac{x}{y}, \frac{y}{z}, \frac{z}{x}\right)$, prove that $xu_x + yu_y + zu_z = 0$.	**07**	**L3**	**CO2**
	c.	Find the extreme values of $f(x, y) = x^3 + 3x^2y + 15x^2 - 15y^2 + 72x$	**07**	**L2**	**CO2**
		OR			
Q.4	**a.**	Evaluate $\lim_{x\to 0}(\cos x)^{1/x^2}$	**07**	**L2**	**CO2**
	b.	If $u = \frac{yz}{x}$, $v = \frac{zx}{y}$, $w = \frac{xy}{z}$, show that $\frac{\partial(u,v,w)}{\partial(x,y,z)} = 4$	**08**	**L3**	**CO2**
	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**	**CO2**
		Module – 3			
Q.5	**a.**	Solve, $(x^2 - 4xy - 2y^2)dx + (y^2 - 4xy - 2x^2)dy = 0$	**06**	**L2**	**CO3**
	b.	Prove that family of parabolas $y^2 = 4a(x + a)$ is a self-orthogonal.	**07**	**L3**	**CO3**
	c.	Solve, $xyp^2 + p(3x^2 - 2y^2) - 6xy = 0$.	**07**	**L3**	**CO3**

		OR			
Q.6	**a.**	Solve, $\frac{dy}{dx} + y\tan x = y^3 \sec x$	**06**	**L2**	**CO3**
	b.	A body originally at 80°C cools down 60°C in 20 minutes, the temperature of the air being 40°C. what will be the temperature of the body after 40 minutes from the original?	**07**	**L2**	**CO3**
	c.	Find the general and singular solution of $\sin px \cdot \cos y = \cos px \cdot \sin y + p$	**07**	**L2**	**CO3**
		Module – 4			
Q.7	**a.**	Solve $(D^3 + 1)y = \cos(2x - 1)$	**06**	**L3**	**CO4**
	b.	Solve, $\frac{d^2y}{dx^2} + \frac{dy}{dx} = x^2 + 2x + 4$	**07**	**L2**	**CO4**
	c.	Solve by variation of parameters method. $\frac{d^2y}{dx^2} + a^2y = \sec(ax)$	**07**	**L2**	**CO4**
		OR			
Q.8	**a.**	Solve, $[D^4 + 4D^3 - 5D^2 - 36D - 36]y = 0$	**06**	**L2**	**CO4**
	b.	Solve, $\frac{d^2y}{dx^2} + 4y = x^2 + 2^{-x}$	**07**	**L3**	**CO4**
	c.	Solve, $x^2\frac{d^2y}{dx^2} + x\frac{dy}{dx} + 9y = \sin(3\log x)$	**07**	**L2**	**CO4**
		Module – 5			
Q.9	**a.**	Find the ranks of the matrix $\begin{bmatrix} 0 & 2 & 3 & 4 \\ 2 & 3 & 5 & 4 \\ 4 & 8 & 13 & 12 \end{bmatrix}$	**06**	**L2**	**CO5**
	b.	Using Gauss-Jordan method, solve $x + y + z = 9$; $x - 2y + 3z = 8$; $2x + y - z = 3$	**07**	**L2**	**CO5**
	c.	Find the dominant eigen value and corresponding eigen vector of the matrix $\begin{bmatrix} 6 & -2 & 2 \\ -2 & 3 & -1 \\ 2 & -1 & 3 \end{bmatrix}$ by power method taking the initial eigen vector as $[1, 1, 1]^T$. Carry out four iterations.	**07**	**L2**	**CO5**
		OR			
Q.10	**a.**	Test for consistency and solve $2x + y + 4z = 12$; $4x + 11y - z = 33$; $8x - 3y + 2z = 20$	**06**	**L3**	**CO5**
	b.	Using Gauss Seidal iteration method, solve the system of equations carry out 3 iterations. $20x + y - 2z = 17$; $3x + 20y - z = -18$; $2x - 3y - 20z = 25$	**07**	**L2**	**CO5**
	c.	Using modern mathematical tool, write a program/code to find largest eigen value of $A = \begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$ by power method.	**07**	**L3**	**CO5**

* * * * *

CBCS SCHEME

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

BMATM201

Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Mathematics – II for Mechanical 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 $\int_{-c}^{c}\int_{-b}^{b}\int_{-a}^{a}(x^2+y^2+z^2)\,dx\,dy\,dz$.	**6**	**L2**	**CO1**
	b.	Evaluate $\int_0^a\int_0^{2\sqrt{ax}} x^2 dy\, dx$ by changing the order of integration.	**7**	**L2**	**CO1**
	c.	Show that $\gamma\left(\frac{1}{2}\right)=\sqrt{\pi}$.	**7**	**L2**	**CO1**
		OR			
Q.2	**a.**	Evaluate $\int_0^1\int_0^{\sqrt{1-y^2}} x^3 y\,dx\,dy$.	**7**	**L2**	**CO1**
	b.	Evaluate $\int_0^\infty\int_0^\infty e^{-\left(x^2+y^2\right)}dx\,dy$ by changing into polar coordinates.	**7**	**L3**	**CO1**
	c.	Write a modern mathematical tool program to find the volume of the tetrahedron bounded by the planes x = 0, y = 0 and $\frac{x}{a}+\frac{y}{b}+\frac{z}{c}=1$	**6**	**L3**	**CO5**
		Module – 2			
Q.3	**a.**	Find the directional derivatives of $\phi = x^2yz+4xz^2$ at (1, -2, -1) along $\vec{a}=2i-j-2k$.	**6**	**L3**	**CO2**
	b.	Show that $\vec{f}=(z+\sin y)i+(x\cos y-z)j+(x-y)k$ is irrotational. Hence find a scalar function ϕ such that $\vec{f}=\nabla\phi$.	**7**	**L2**	**CO2**
	c.	Using Green's theorem, evaluate $\oint(3x^2-8y^2)dx+(4y-6xy)dy$, where c is the boundary of the region enclosed by $y=\sqrt{x}$ and y = x^2.	**7**	**L3**	**CO2**

OR

Q.4

a. Find the angle between the surface $x\log z = y^2 - 1$ and $x^2 y = 2 - z$ at (1, 1, 1). — 6 | L2 | CO2

b. If $\vec{A} = xz^3 i - 2x^2 yzj + 2yz^4 k$, find $\nabla.\vec{A}$, $\nabla\times\vec{A}$ and $\nabla.\left(\nabla\times\vec{A}\right)$ — 7 | L3 | CO2

c. Verify Stoke's theorem for $\vec{F} = \left(x^2 + y^2\right)i - 2xyj$ taken round the rectangle bounded by the lines $x = \pm a$, y = 0 and y = b — 7 | L3 | CO5

Module – 3

Q.5

a. Form the PDE by eliminating the arbitrary function from $z = e^{ax+by} f(ax - by)$. — 6 | L1 | CO3

b. Solve $\dfrac{\partial^2 z}{\partial y^2} = z$, give that when y = 0, $z = e^x$ and $\dfrac{\partial z}{\partial y} = e^{-x}$. — 7 | L2 | CO3

c. Solve : $(y - z)P + (z - x)Q = (x - y)$. — 7 | L2 | CO3

OR

Q.6

a. Solve : $\dfrac{\partial^3 z}{\partial x^2 \partial y} = \cos(2x + 3y)$ — 6 | L2 | CO3

b. Solve: $\dfrac{\partial z}{\partial x^2} = a^2 z$ given that when x = 0, $\dfrac{\partial z}{\partial x} = a\sin y$ and $\dfrac{\partial z}{\partial y} = 0$ — 7 | L3 | CO3

c. Derive one-dimensional heat equation. — 7 | L3 | CO3

Module – 4

Q.7

a. Compute real root of the equation $xe^x = 2$ by the Regula-Falsi method. Correct to three decimal places. — 7 | L2 | CO4

b. The area A of a circle of diameter d is given for the following values : — 7 | L2 | CO4

d	80	85	90	95	100
A	5026	5674	6362	7088	7854

Calculate the area of circle of diameter 105.

c. Using Simpson's one-third rule to find $\int_0^{0.6} e^{-x^2}$ by taking 6 sub intervals. — 6 | L2 | CO4

OR

Q.8

a. Find a real root of the equation $xe^x - 2 = 0$. Correct to three decimal places using Newton-Raphson method. — 7 | L2 | CO4

b. Use Newton's divided difference formula to find f(9) for the following data: — 7 | L2 | CO4

x	5	7	11	13	17
f(x)	150	392	1452	2366	5202

	c.	Use Simpson's $\frac{3}{8}^{th}$ rule, evaluate $\int_0^{\frac{\pi}{2}} e^{\sin x} dx$, by dividing interval into three equal parts.	6	L3	CO4
Module – 5					
Q.9	a.	From Taylor's series method, find y(0.1) considering upto fourth degree term if y(x) satisfies the equation, $\frac{dy}{dx} = x - y^2$, y(0) = 1.	6	L1	CO4
	b.	Use Fourth order Runge-Kutta method to compute y(1.1) given that $\frac{dy}{dx} = xy^{\frac{1}{3}}$, y(1) = 1.	7	L2	CO4
	c.	Apply Milne's method to compute y(1.4). Correct to Four decimal places given $\frac{dy}{dx} = x^2 + \frac{y}{2}$ and following data y(1) = 2, y(1.1) = 2.2156, y(1.2) = 2.4649, y(3) = 2.7514	7	L3	CO4
OR					
Q.10	a.	Given $\frac{dy}{dx} = 1 + \frac{y}{x}$, y = 2 at x = 1, find the approximate value of y at x = 1.2 by taking step size h = 0.2 applying modified Euler's method.	6	L2	CO4
	b.	Use the Runge-Kutta method of 4th order, find y(0.2) for the equation, $\frac{dy}{dx} = \frac{y - x}{y + x}$, y(0) = 1 taking h = 0.2.	7	L2	CO4
	c.	Using modern mathematical tools write a program to solve $y' + 4y = x^2$ with initial conditions y(0) = 1, using Taylor series method at x = 0.1, 0.2.	7	L3	CO5

* * * * *

CBCS SCHEME

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

BMATS101

First Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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. 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 notation prove that $\tan\phi = r\dfrac{d\theta}{dr}$.	**6**	**L2**	**CO1**
	b.	Find the angle between the curves, $r^2\sin 2\theta = 4$ and $r^2 = 16\sin 2\theta$	**7**	**L2**	**CO1**
	c.	Show that the radius of curvature of the curve $r^n = a^n \cos n\theta$ varies inversely as r^{n-1}.	**7**	**L3**	**CO1**
		OR			
Q.2	**a.**	Show that the curves $r^n = a^n \cos n\theta$ and $r^n = b^n \sin n\theta$ cuts each other orthogonally.	**7**	**L2**	**CO1**
	b.	Find the Pedal equation of the curve $\dfrac{2a}{r} = (1 + \cos\theta)$.	**8**	**L2**	**CO1**
	c.	Using modern mathematical tool, write a program/code to plot the sine and cosine curve.	**5**	**L3**	**CO5**
		Module – 2			
Q.3	**a.**	Using Maclaurin's series, prove that $\sqrt{1+\sin 2x} = 1 + x - \dfrac{x^2}{2} - \dfrac{x^3}{6} + \dfrac{x^4}{24} \ldots\ldots$	**6**	**L2**	**CO1**
	b.	If $U = f(x-y, y-z, z-x)$, Show that $\dfrac{\partial u}{\partial x} + \dfrac{\partial u}{\partial y} + \dfrac{\partial u}{\partial z} = 0$.	**7**	**L2**	**CO1**
	c.	Find the extreme values of the function $f(x, y) = x^3 + y^3 - 3x - 12y + 20$.	**7**	**L3**	**CO1**
		OR			
Q.4	**a.**	If $u = f\left(\dfrac{x}{y}, \dfrac{y}{z}, \dfrac{z}{x}\right)$ then show that $x\dfrac{\partial u}{\partial x} + y\dfrac{\partial u}{\partial y} + z\dfrac{\partial u}{\partial z} = 0$	**7**	**L2**	**CO1**
	b.	If $u = \dfrac{yz}{x}$, $v = \dfrac{zx}{y}$, $w = \dfrac{xy}{z}$, show that $\dfrac{\partial(u,v,w)}{\partial(x,y,z)} = 4$.	**8**	**L2**	**CO1**
	c.	Using modern mathematical tool, write a program/code to evaluate $\underset{x\to\infty}{Lt}\left(1+\dfrac{1}{x}\right)^x$	**5**	**L3**	**CO5**

Module – 3					
Q.5	**a.**	Solve : $\frac{dy}{dx}+\frac{y}{x}=x^2y^6$.	**6**	**L2**	**CO2**
	b.	Find the orthogonal trajectories of the family $r = a(1+\sin\theta)$.	**7**	**L3**	**CO2**
	c.	Solve : $xy\,p^2 + p\,(3x^2 - 2y^2) - 6xy = 0$.	**7**	**L2**	**CO2**
OR					
Q.6	**a.**	Solve : $(y^3 - 3x^2y)dx - (x^3 - 3xy^2)dy = 0$.	**6**	**L2**	**CO2**
	b.	Find the orthogonal trajectories of $\frac{x^2}{a^2}+\frac{y^2}{b^2+\lambda}=1$, where λ is a parameter.	**7**	**L3**	**CO2**
	c.	Find the general solution of the equation $(px - y)(py + x) = 2p$ by reducing into Clairaut's form by taking substitution $X = x^2$, $Y = y^2$.	**7**	**L2**	**CO2**
Module – 4					
Q.7	**a.**	i) Find the remainder when 2^{301} is divided by 5. ii) Find the last digit in 7^{126}.	**6**	**L2**	**CO3**
	b.	Find the solution of the linear congruence $7x \equiv 9 \pmod{15}$.	**7**	**L2**	**CO3**
	c.	Encrypt the message "STOP" using RSA with key (2537, 13) using the prime numbers 43 and 59.	**7**	**L2**	**CO3**
OR					
Q.8	**a.**	Using Fermat's Little theorem, show that $8^{30} - 1$ is divisible by 31.	**6**	**L2**	**CO3**
	b.	Solve the system of linear congruence $7x + 3y \equiv 10 \pmod{16}$ $2x + 5y \equiv 9 \pmod{16}$	**7**	**L2**	**CO3**
	c.	i) Find the remainder when $135 \times 74 \times 48$ is divided by 7. ii) Find last digit of 13^{37}.	**7**	**L2**	**CO3**
Module – 5					
Q.9	**a.**	Find the rank of the matrix $A=\begin{bmatrix} -2 & -1 & -3 & -1 \\ 1 & 2 & 3 & 1 \\ 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix}$	**7**	**L2**	**CO4**
	b.	Solve the system of equations by using Gauss-Jordan method $x + y + z = 9$ $x - 2y + 3z = 8$ $2x + y - z = 3$.	**8**	**L2**	**CO4**

	c.	Using modern mathematical tool, write a program/code to test the consistency of equations $x + 2y - z = 1$ $2x + y + 4z = 2$ $3x + 3y + 4z = 1$	**5**	**L3**	**CO5**
OR					
Q.10	**a.**	Solve the following system of equations by Gauss – Seidel method $10x + y + z = 12$ $x + 10y + z = 12$ $x + y + 10z = 12$ (perform 4 iterations) by taking the initial approximation (x, y, z) as (0, 0, 0).	**6**	**L2**	**CO4**
	b.	For what values of λ and μ the system of equations $x + y + z = 6$ $x + 2y + 3z = 10$ $x + 2y + \lambda z = \mu$, may have i) Unique solution ii) Infinite solution iii) No solution.	**7**	**L2**	**CO4**
	c.	Solve the system of equations by using Gauss elimination method $2x + y + 4z = 12$ $4x + 11y - z = 33$ $8x - 3y + 2z = 20$.	**7**	**L2**	**CO4**

* * * * *

CBCS SCHEME

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

BMATS201

Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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. 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 $\int_{-1}^{1}\int_{0}^{z}\int_{x-z}^{x+z}(x+y+z)\,dy\,dx\,dz$	07	L2	CO1
	b.	Evaluate $\int_{0}^{1}\int_{x=0}^{\sqrt{1-y^2}}(x^2+y^2)\,dx\,dy$ by changing into polar coordinates.	07	L3	CO1
	c.	Prove that $\beta(m,n)=\frac{\gamma(m)\cdot\gamma(n)}{\gamma(m+n)}$.	06	L2	CO1
		OR			
Q.2	a.	Evaluate $\int_{0}^{\infty}\int_{x}^{\infty}\frac{e^{-y}}{y}\,dy\,dx$ by changing the order of integration.	07	L3	CO1
	b.	Find the area of the ellipse $\frac{x^2}{a^2}+\frac{y^2}{b^2}=1$ by double integration.	07	L3	CO1
	c.	Using the mathematical tools, write the code to evaluate the integral, $\int_{0}^{3}\int_{0}^{3-x}\int_{0}^{3-x-y}(xyz)dzdydx$.	06	L3	CO5
		Module – 2			
Q.3	a.	Find the directional derivative of $\phi = 4xz^3 - 3x^2y^2z$ at (2, –1, 2) along $2i-3j+6k$.	07	L2	CO2
	b.	Find $curl(curlA)$, given that $\vec{A}=x^2yi-2xzj+2yzk$ at (1, 0, 2)	07	L2	CO2
	c.	Prove that the Spherical coordinate system is orthogonal.	06	L3	CO2
		OR			
Q.4	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	CO2
	b.	Show that, $\vec{F}=(y^2-z^2+3yz-2x)i+(3xz+2xy)j+(3xy-2xz+2z)k$ is both Solenoidal and irrotational.	07	L2	CO2
	c.	Using Mathematical tools, write the code to find the curl of $\vec{F}=x^2yzi+y^2zxj+z^2xyk$.	06	L3	CO5

<table>
<tr><td colspan="6">Module – 3</td></tr>
<tr><td>Q.5</td><td>a.</td><td>Prove that $w=\{(x,2y,3z) \mid x,y,z\in R\}$ is a subspace of the vector space $V_3(R)$.</td><td>07</td><td>L2</td><td>CO3</td></tr>
<tr><td></td><td>b.</td><td>Determine whether the matrix $\begin{bmatrix}3 & -1\\ 1 & -2\end{bmatrix}$ in the vector space of 2×2 matrices is a linear combination of $x_1=\begin{pmatrix}1 & 1\\ 0 & -1\end{pmatrix}$, $x_2=\begin{pmatrix}1 & 1\\ -1 & 0\end{pmatrix}$, $x_3=\begin{pmatrix}1 & -1\\ 0 & 0\end{pmatrix}$</td><td>07</td><td>L2</td><td>CO3</td></tr>
<tr><td></td><td>c.</td><td>Prove that the transformation T : $V_3(R) \rightarrow V_2(R)$ defined by, T(x, y, z) = (x+y, y+z) is a linear transformation.</td><td>06</td><td>L2</td><td>CO3</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td>Q.6</td><td>a.</td><td>Find the dimension and basis of the subspace spanned by the vectors, $\{(1,-3,4),(6,2,-1),(2,-2,3),(-4,-8,9)\}$ in $V_3(R)$.</td><td>07</td><td>L2</td><td>CO3</td></tr>
<tr><td></td><td>b.</td><td>Find the matrix of the linear transformation,
$T: V_2(R) \rightarrow V_3(R)$ defined by,
T(x, y) = (x+y, x, 3x-y) with respect to basis,
$B_1=\{(1,1)(3,1)\}$, $B_2=\{(1,1,1)(1,1,0)(1,0,0)\}$.</td><td>07</td><td>L2</td><td>CO3</td></tr>
<tr><td></td><td>c.</td><td>Verify Rank-nullity theorem for the linear transformation $T:V_3(R)\rightarrow V_2(R)$ defined by T(x,y,z) = (y-x, y-z)</td><td>06</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 real root of $x\log_{10}x - 1.2 = 0$ using Regular Falsi method.</td><td>07</td><td>L2</td><td>CO4</td></tr>
<tr><td></td><td>b.</td><td>Using Newton's divided difference formula, evaluate f(4), given that
<table>
<tr><td>x</td><td>0</td><td>2</td><td>3</td><td>6</td></tr>
<tr><td>y</td><td>-4</td><td>2</td><td>14</td><td>158</td></tr>
</table></td><td>07</td><td>L2</td><td>CO4</td></tr>
<tr><td></td><td>c.</td><td>Evaluate $\int_0^6 \frac{dx}{1+x^2}$ by using Trapezoidal rule, taking 6 divisions.</td><td>06</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 a real root of $xe^x - 2 = 0$. Correct to three decimal places using Newton-Raphson method.</td><td>07</td><td>L2</td><td>CO4</td></tr>
<tr><td></td><td>b.</td><td>The area of a circle (A) corresponding to diameter (D) is given below. Find the area corresponding to diameter 105 using appropriate interpolation formula.
<table>
<tr><td>x</td><td>80</td><td>85</td><td>90</td><td>95</td><td>100</td></tr>
<tr><td>y</td><td>5026</td><td>5674</td><td>6362</td><td>7088</td><td>7854</td></tr>
</table></td><td>07</td><td>L2</td><td>CO4</td></tr>
<tr><td></td><td>c.</td><td>Evaluate $\int_0^1 \frac{x^2}{1+x^3}dx$ by applying Simpson's $\frac{1}{3}^{rd}$ rule with 7 ordinates.</td><td>06</td><td>L3</td><td>CO4</td></tr>
</table>

Module – 5					
Q.9	**a.**	Using Taylor's series method, find the value of y at x = 0.1 and x = 0.2, given that $\frac{dy}{dx} = 2y + 3e^x$, y(0) = 0.	**07**	**L2**	**CO4**
	b.	Using Runge Kutta method of fourth order, find y(0.2) given that $\frac{dy}{dx} = 3x + \frac{y}{2}$, y(0) = 1 taking h = 0.2.	**07**	**L2**	**CO4**
	c.	Given that $\frac{dy}{dx} = x^2 + y^2$, y(0) = 1, y(0.1) = 1.1113, y(0.2) = 1.2507, y(0.3) = 1.426. Find y(0.4) by applying Milne's method.	**06**	**L2**	**CO4**
OR					
Q.10	**a.**	Using Modified Euler's method find y(0.2). Correct to three decimal places, given that $\frac{dy}{dx} = x - y^2$; y(0) = 1, taking h = 0.1. (Perform 2 modifications in each stage)	**07**	**L2**	**CO4**
	b.	Using Runge-Kutta method of fourth order, find y(0.5), given that $\frac{dy}{dx} = \frac{1}{x+y}$, y(0.4) = 1 taking h = 0.1	**07**	**L2**	**CO4**
	c.	Using 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 method of fourth order.	**06**	**L3**	**CO5**

* * * * *

CBCS SCHEME

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

BESCK204A

Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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.**	List out different branches of civil engineering and explain any 4 branches.	**10**	**L1**	**CO1**
	b.	List out basic materials of construction and explain any 4 materials.	**10**	**L1**	**CO1**
		OR			
Q.2	**a.**	Explain briefly the structural elements of a building.	**10**	**L1**	**CO1**
	b.	Write the advantages and disadvantages of R.C.C.	**10**	**L1**	**CO1**
		Module – 2			
Q.3	**a.**	Write a short note on : i. Smart city concept ii. Clean city concept.	**10**	**L1**	**CO2**
	b.	Explain the causes at urban flooding and discuss the engineering and non-engineering measures used to mitigate urban flooding.	**10**	**L1**	**CO2**
		OR			
Q.4	**a.**	Explain the importance of water supply and sanitary system.	**10**	**L1**	**CO2**
	b.	What is solid waste management? Explain the sources and origin of solid wastes.	**10**	**L1**	**CO2**
		Module – 3			
Q.5	**a.**	State and explain the law of parallelogram of forces.	**10**	**L2**	**CO3**
	b.	Find the magnitude and direction of the resultant force system in Fig.Q5(b).	**10**	**L3**	**CO3**

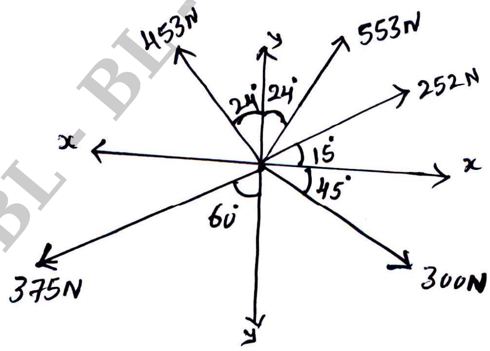


Fig.Q5(b)

OR

Q.6	**a.**	Determine the magnitude, direction and position of the resultant force with reference to the point A for the non-coplanar force system in Fig.Q6(a).	**10**	**L3**	**CO3**

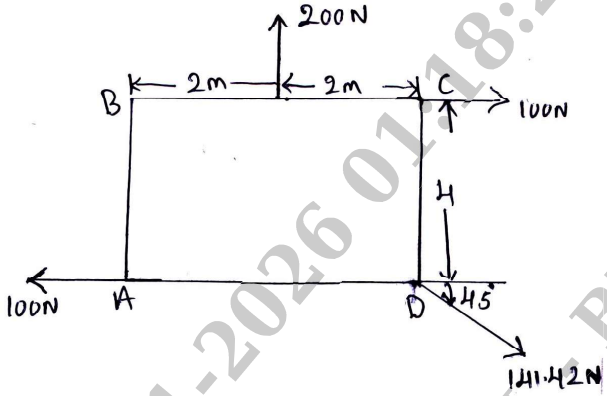


Fig.Q6(a)

	b.	Compute the tension in the strings AB, BC and CD shown in Fig.Q6(b).	**10**	**L3**	**CO3**

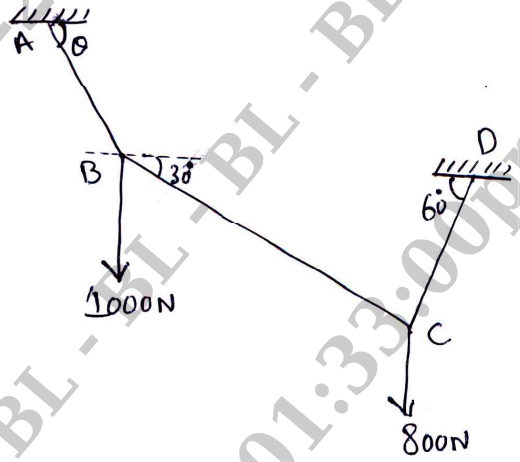


Fig.Q6(b)

Module – 4

Q.7	**a.**	Find the Centroid of a semicircle using first principle.	**8**	**L3**	**CO4**
	b.	Locate the Centroid of the Fig.Q7(b).	**12**	**L3**	**CO4**

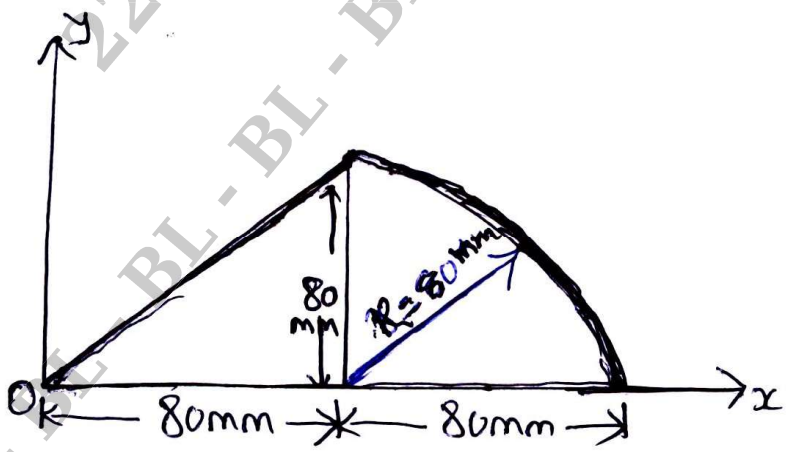
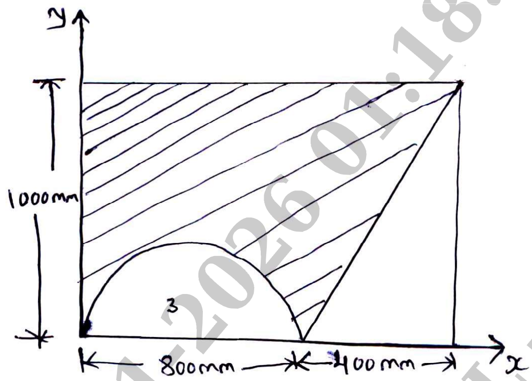
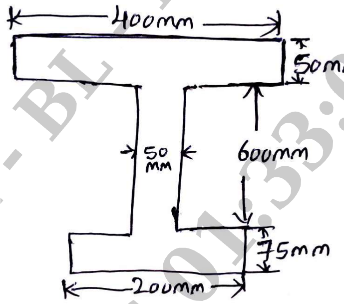
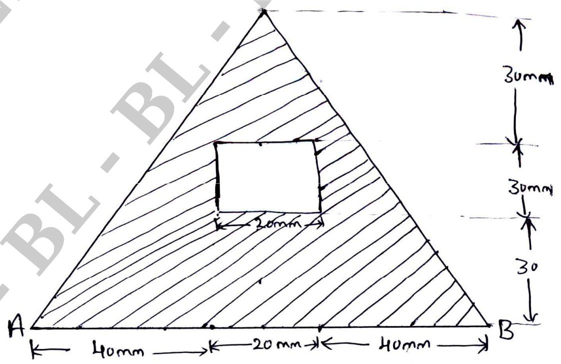


Fig.Q7(b)

		OR			
Q.8	**a.**	Find the Centroid of a triangle from first principle.	**8**	**L3**	**CO4**
	b.	Determine the Centroid of a shaded area shown in Fig.Q8(b).  Fig.Q8(b)	**12**	**L3**	**CO4**
		Module – 5			
Q.9	**a.**	State and prove parallel and perpendicular axis theorem.	**10**	**L2**	**CO5**
	b.	Determine the moment of inertia along the horizontal axis and vertical axis passing through the Centroid of a section shown in Fig.Q9(b).  Fig.Q9(b)	**10**	**L3**	**CO5**
		OR			
Q.10	**a.**	Derive an expression for moment of inertia of a circle along its Centroidal axis.	**10**	**L2**	**CO5**
	b.	Determine the moment of inertia and radius of gyration of the shaded area shown in Fig.Q10(b), about the base AB.  Fig.Q10(b)	**10**	**L3**	**CO5**

* * * * *

CBCS SCHEME

USN | | | | | | | | | |

BETCK205B

Second Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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.

		Module – 1	M	L	C
Q.1	a.	Explain types of cost effective construction material with their advantages.	10	L2	CO1
	b.	Explain the need for reuse and recycle of building materials along with its benefits.	10	L2	CO1
		OR			
Q.2	a.	Explain the various environmental issues causal due to quarrying of building materials.	10	L2	CO1
	b.	Define fiber reinforced polymer composites. Mention its advantages and applications.	10	L1	CO1
		Module – 2			
Q.3	a.	Mention the advantages and disadvantages of pre-engineered buildings.	10	L1	CO2
	b.	Explain the construction method involved in rat trap bond with neat sketch.	10	L2	CO2
		OR			
Q.4	a.	Explain Filler Slab and ferrocement based alternative roofing systems.	10	L2	CO2
	b.	Explain the objectives of Nirmithi Kendra briefly.	10	L2	CO2
		Module – 3			
Q.5	a.	Explain the five means of reducing carbon emissions.	10	L2	CO3
	b.	Describe the causes and effects of global warming.	10	L2	CO3
		OR			
Q.6	a.	Explain the environmental benefits of Green Buildings.	10	L2	CO3
	b.	Differentiate between Conventional Building and Green Buildings.	10	L2	CO3
		Module – 4			
Q.7	a.	Briefly explain the BREEAM assessment category.	10	L2	CO4
	b.	Explain the features and benefits of GRIHA.	10	L2	CO4

		OR			
Q.8	**a.**	Explain different characteristics of sustainable buildings.	**10**	**L2**	**CO4**
	b.	Describe objectives of green building design.	**10**	**L2**	**CO4**
		Module – 5			
Q.9	**a.**	Explain passive solar design basics for heating and cooling of buildings.	**10**	**L2**	**CO5**
	b.	Explain the advantages and disadvantages of solar powered building concepts.	**10**	**L2**	**CO5**
		OR			
Q.10	**a.**	Explain the process of management of solid waste.	**10**	**L2**	**CO5**
	b.	Explain the concept of green cover and build environment.	**10**	**L2**	**CO5**

* * * * *

CBCS SCHEME

21KBK37

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

Question Paper Version : A

Third Semester B.Arch./B.Planning Degree Examination, Dec.2025/Jan.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.

Choose the appropriate word to fill in the blanks in each of the following sentences :
(eg : Naanu, uuTa (lunch) _______(maadu)
a) maaduttene b) maaDideya c) maaDisu d) maaDi

The right answer is (a) maaDuttene

1. leela iVattu bengalurige __________(hogu).
(Leela is on her way to Bangalore today)
a)howdu b) hoguttene c) ide d) hoguttale

2. nanna (me) Hattira (next) __________(kutka) (sit down next to me)
a)kunDru b) kooDu c) kuLituko d) none of these

3. namma (our) manege (home)_________(baa) (coming to our house).
a)baruttiya b) beDa c) bandi d) baru

4. Doctor Aushadi __________(kodu) (The doctor gave me the medicine)
a)kelu b) heltare c) kottaru d) sigtare

5. Ninna ______(hesren)? What is your name?
a) hesarnu b) hesrenu c) hesaru enu d) hesaru En

6. Neenu appana hattira hogi ______(ninthu).
(you go to Dad and Stand up)
a)nillu b) ninthka c) ninthuko d) nindru

7. Mobile thumba _______thale novu baruthe (nodu)
(It hurts when you look at your mobile phone too much)
a)balake b) mathadu c) nodudre d) nodidare

8. adhyapakaru paatha _______ (mugisu).
The teacher finished the lesson
a) mugithu b) mukthaya c) mugisidaru d) madisu

Fill in the blanks by translating the given English word into kannada :

9. When _______
a) yaaru b) yaake c) yelli d) yaavaga

10. She ______
a) adu b) avalu c) idu d) avanu

11. Teacher _________
a) Shishya b) Shikshaka c) huDuga d) manushya

12. You__________
a) ninu b) nanna c) avana d) namma

13. Who ________
a) adu b) Idu c) yaaru d) eenu

Choose the equivalent kannada words to the English words given below :
(eg : night = raatri ; they = avaru)

14. Shop : _______
a) mane b) angadi c) kante d) dukan

15. Child :________
a) heNNu b) maanaVa c) mahiLe d) magu

16. Mother : _________
a) magalu b) Thande c) kanda d) Taayi

17. See : _______
a) nooDu b) iDu c) maaDu d) biDu

Choose the equivalent English words to the kannada words given below :
(eg : Sanje = evening ; naaVu = we)

18. Tarakari : _________
a) Potato b) Vegetable c) Lemon d) Fresh

19. hesaru: : _________
a) Name b) animals c) Naam d) Trees

20. Kurchi : :__________
a) Pen b) Chair c) Table d) Book

21. Anna : __________
a) Elder sister b) Younger brother c) Younger sister d) Elder brother

22. Taande : __________
a) Mother b) Father c) Sister d) Brother

Transform the following according to the model :

23. Model : ondu- ondaneya
Transform : modalu _______
a) modalane b) modalaneya c) modalu d) modala

24. Model : naanu - nanage
Transform : Neevu_______
a)Nimage b) Namage c) nimage d) NeeVuge

25. Model : Anna- Annandiru
Transform : Akka_______
a) Akkaru b) Akkandiru c) AkkaVaru d) Akka

26. Model : ondu- ondaneya
Transform : modalaneya_______
a)modalane b) modalaneya c) modalu d) modala

Translate the Kannada word into English :

27. Bekku : ________
a) Dog b) Pig c) Cow d) Cat

28. Pusthaka : ________
a) Pen b) Book c) Bag d) School

29. magu _______
a)Son b) daughter c) Elderson d) child

30. Mosaru __________
a) curd b) milk c) butter milk d) cream

31. mane __________
a)Garden b) home c) Forest d) Office

Translate the following English questions into kannada :

32. It is not my book.
a) Idu nanna pusthaka Alla b) Idu nanna pusthaka
c) Houdu nanna pusthaka d) Idu yaara pusthaka

33. Who is he?
a) Adu yaru b) Adu enu? c) Avanu yaaru d) Avalu yaaru

34. What is your mother tongue ______?
a)ninna thayi hesarenu?
b)nimma uru yaVudu?
c)nimma mathru bhomi yavudu?
d)nimma mathru bashe yavudu?

35. He is a boy.
a) Avanu Huduga b) ADu Huduga
c) Avalu huduga d) Avanu Yuvaka

36. Which is your state?
a)Karnataka b) Karaataka c) Kannataka d) Kannunataka

Use the following words in your own sentences:

37. AvaLu ________
a)adu avaLu b) avaLu nanna akka
c) avaLu nanna Anna d) Idu AvaLu

38. Vidyaarthi ________
a)Naanu college vidyaarthi b) Naanu Vyapari
c) Naanu Singer d) Naanu Badava

39. Maga _______
a) adu maga b) Idu magu c) edu nanna maga d) Nanna maga

40. Taayi _______
a) avalu nanna prithiya Taayi b) adu nanna Taayi
c) adakke Taayi d) avalu Taayi

Fill in the blanks with suitable words given :

41. nimma hesaru ________
a) adu b) edu c) eenu d) yaaru

42. iVanu namma _______
a)Tangi b) aNNa c) akka d) Taayi

43. __________ yaaru?
a) ninna b) nanna c) avana d) nivu

44. adu namma ________.
a)adhyaapaka b) kaaLeeju c) Avalu d) vidyaarthi

Transform the following words of kannada as per given model :
(Example : saNNa- saNNadu)

45. doDDa :_______
a) chikkadu b) udda
c) hosa d) doDDadu

46. chikka :_______
a)Chikkadu b) sanndu c) doDDadu d) Haleya

47. Nimma :______
a) avaLu b) nimmadu c) avara d) adu

Transform the following words of kannada as per the given model.
(Example : swamy – swamigaLu)

48. Mane :_______
a) manakke b) manege c) manegaLu d) maneadu

49. Pustaka :_________
a) pustakagaLu b) pustaka c) pustakana d) Dodda pustaka

50. Guru :_________
a) guruvige b) gurugalu c) guruvina d) guruvam

* * * * *

CBCS SCHEME

21KBK37

USN | | | | | | | | | |

Question Paper Version : B

Third Semester B.Arch./B.Planning Degree Examination, Dec.2025/Jan.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.

Translate the Kannada word into English :

1. Bekku : ________
   a) Dog b) Pig c) Cow d) Cat

2. Pusthaka : ________
   a) Pen b) Book c) Bag d) School

3. magu _______
   a)Son b) daughter c) Elderson d) child

4. Mosaru __________
   a) curd b) milk c) butter milk d) cream

5. mane __________
   a)Garden b) home c) Forest d) Office

Transform the following words of kannada as per the given model.
(Example : swamy – swamigaLu)

6. Mane :_______
   a) manakke b) manege c) manegaLu d) maneadu

7. Pustaka :_________
   a) pustakagaLu b) pustaka c) pustakana d) Dodda pustaka

8. Guru :_________
   a) guruvige b) gurugalu c) guruvina d) guruvam

Choose the appropriate word to fill in the blanks in each of the following sentences :
(eg : Naanu, uuTa (lunch) _____(maadu)
a) maaduttene b) maaDideya c) maaDisu d) maaDi

The right answer is (a) maaDuttene

9. leela iVattu bengalurige _____(hogu).
(Leela is on her way to Bangalore today)
a)howdu b) hoguttene c) ide d) hoguttale

10. nanna (me) Hattira (next) _____(kutka) (sit down next to me)
a)kunDru b) kooDu c) kuLituko d) none of these

11. namma (our) manege (home) _____(baa) (coming to our house).
a)baruttiya b) beDa c) bandi d) baru

12. Doctor Aushadi _____(kodu) (The doctor gave me the medicine)
a)kelu b) heltare c) kottaru d) sigtare

13. Ninna _____(hesren)? What is your name?
a) hesarnu b) hesrenu c) hesaru enu d) hesaru En

14. Neenu appana hattira hogi _____(ninthu).
(you go to Dad and Stand up)
a)nillu b) ninthka c) ninthuko d) nindru

15. Mobile thumba _____thale novu baruthe (nodu)
(It hurts when you look at your mobile phone too much)
a)balake b) mathadu c) nodudre d) nodidare

16. adhyapakaru paatha _____ (mugisu).
The teacher finished the lesson
a)mugithu b) mukthaya c) mugisidaru d) madisu

Translate the following English questions into kannada :

17. It is not my book.
a) Idu nanna pusthaka Alla b) Idu nanna pusthaka
c) Houdu nanna pusthaka d) Idu yaara pusthaka

18. Who is he?
a) Adu yaru b) Adu enu? c) Avanu yaaru d) Avalu yaaru

19. What is your mother tongue _____?
a)ninna thayi hesarenu?
b)nimma uru yaVudu?
c)nimma mathru bhomi yavudu?
d)nimma mathru bashe yavudu?

20. He is a boy.
a) Avanu Huduga b) ADu Huduga
c) Avalu huduga d) Avanu Yuvaka

21. Which is your state?
a) Karnataka b) Karaataka c) Kannataka d) Kannunataka

Fill in the blanks by translating the given English word into kannada :

22. When ________
a) yaaru b) yaake c) yelli d) yaavaga

23. She ______
a) adu b) avalu c) idu d) avanu

24. Teacher _________
a) Shishya b) Shikshaka c) huDuga d) manushya

25. You__________
a) ninu b) nanna c) avana d) namma

26. Who ________
a) adu b) Idu c) yaaru d) eenu

Use the following words in your own sentences:

27. AvaLu ________
a) adu avaLu
b) avaLu nanna akka
c) avaLu nanna Anna
d) Idu AvaLu

28. Vidyaarthi ________
a) Naanu college vidyaarthi
b) Naanu Vyapari
c) Naanu Singer
d) Naanu Badava

29. Maga _______
a) adu maga b) Idu magu c) edu nanna maga d) Nanna maga

30. Taayi _______
a) avalu nanna prithiya Taayi
b) adu nanna Taayi
c) adakke Taayi
d) avalu Taayi

Transform the following words of kannada as per given model :
(Example : saNNa- saNNadu)

31. doDDa :________
a) chikkadu
b) udda
c) hosa
d) doDDadu

32. chikka :_______
a) Chikkadu b) sanndu c) doDDadu d) Haleya

33. Nimma :______
a) avaLu b) nimmadu c) avara d) adu

Fill in the blanks with suitable words given :

34. nimma hesaru ________
a) adu b) edu c) eenu d) yaaru

35. iVanu namma _____
a)Tangi b) aNNa c) akka d) Taayi

36. _____ yaaru?
a) ninna b) nanna c) avana d) nivu

37. adu namma _____.
a)adhyaapaka b) kaLeeju c) Avalu d) vidyaarthi

Choose the equivalent English words to the kannada words given below :
(eg : Sanje = evening ; naaVu = we)

38. Tarakari : _____
a) Potato b) Vegetable c) Lemon d) Fresh

39. hesaru: : _____
a)Name b) animals c) Naam d) Trees

40. Kurchi : :_____
a)Pen b) Chair c) Table d) Book

41. Anna : _____
a)Elder sister b) Younger brother c) Younger sister d) Elder brother

42. Taande : _____
a) Mother b) Father c) Sister d) Brother

Choose the equivalent kannada words to the English words given below :
(eg : night = raatri ; they = avaru)

43. Shop : _____
a) mane b) angadi c) kante d) dukan

44. Child :_____
a)heNNu b) maanaVa c) mahiLe d) magu

45. Mother : _____
a)magalu b) Thande c) kanda d) Taayi

46. See : _____
a) nooDu b) iDu c) maaDu d) biDu

Transform the following according to the model :

Model : ondu- ondaneya

47. Transform : modalu _____
a) modalane b) modalaneya c) modalu d) modala

48. Model : naanu - nanage
Transform : Neevu_____
a)Nimage b) Namage c) nimage d) NeeVuge

49. Model : Anna- Annandiru
Transform : Akka_____
a) Akkaru b) Akkandiru c) AkkaVaru d) Akka

50. Model : ondu- ondaneya
Transform : modalaneya_____
a)modalane b) modalaneya c) modalu d) modala

* * * * *

CBCS SCHEME

21KBK37

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

Question Paper Version : C

Third Semester B.Arch./B.Planning Degree Examination, Dec.2025/Jan.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.

Choose the equivalent English words to the kannada words given below :
(eg : Sanje = evening ; naaVu = we)

1. Tarakari : _________
a) Potato b) Vegetable c) Lemon d) Fresh

2. hesaru: : _________
a)Name b) animals c) Naam d) Trees

3. Kurchi : :__________
a)Pen b) Chair c) Table d) Book

4. Anna : _________
a)Elder sister b) Younger brother c) Younger sister d) Elder brother

5. Taande : __________
a) Mother b) Father c) Sister d) Brother

Translate the following English questions into kannada :

6. It is not my book.
a) Idu nanna pusthaka Alla b) Idu nanna pusthaka
c) Houdu nanna pusthaka d) Idu yaara pusthaka

7. Who is he?
a) Adu yaru b) Adu enu? c) Avanu yaaru d) Avalu yaaru

8. What is your mother tongue ______?
a)ninna thayi hesarenu?
b)nimma uru yaVudu?
c)nimma mathru bhomi yavudu?
d)nimma mathru bashe yavudu?

9. He is a boy.
a) Avanu Huduga b) ADu Huduga
c) Avalu huduga d) Avanu Yuvaka

10. Which is your state?
a)Karnataka b) Karaataka c) Kannataka d) Kannunataka

Transform the following according to the model :

11. Model : ondu- ondaneya
Transform : modalu _______
a) modalane b) modalaneya c) modalu d) modala

12. Model : naanu - nanage
Transform : Neevu_______
a)Nimage b) Namage c) nimage d) NeeVuge

13. Model : Anna- Annandiru
Transform : Akka_______
a) Akkaru b) Akkandiru c) AkkaVaru d) Akka

14. Model : ondu- ondaneya
Transform : modalaneya_______
a)modalane b) modalaneya c) modalu d) modala

Use the following words in your own sentences:

15. AvaLu ________
a)adu avaLu b) avaLu nanna akka
c) avaLu nanna Anna d) Idu AvaLu

16. Vidyaarthi ________
a)Naanu college vidyaarthi b) Naanu Vyapari
c) Naanu Singer d) Naanu Badava

17. Maga _______
a) adu maga b) Idu magu c) edu nanna maga d) Nanna maga

18. Taayi _______
a) avalu nanna prithiya Taayi b) adu nanna Taayi
c) adakke Taayi d) avalu Taayi

Translate the Kannada word into English :

19. Bekku : ________
a) Dog b) Pig c) Cow d) Cat

20. Pusthaka : ________
a) Pen b) Book c) Bag d) School

21. magu _______
a)Son b) daughter c) Elderson d) child

22. Mosaru __________
a) curd b) milk c) butter milk d) cream

23. mane __________
a) Garden b) home c) Forest d) Office

Transform the following words of kannada as per the given model.
(Example : swamy – swamigaLu)

24. Mane :_______
a) manakke b) manege c) manegaLu d) maneadu

25. Pustaka :_________
a) pustakagaLu b) pustaka c) pustakana d) Dodda pustaka

26. Guru :_________
a) guruvige b) gurugalu c) guruvina d) guruvam

Fill in the blanks with suitable words given :

27. nimma hesaru ________
a) adu b) edu c) eenu d) yaaru

28. iVanu namma _______
a) Tangi b) aNNa c) akka d) Taayi

29. __________ yaaru?
a) ninna b) nanna c) avana d) nivu

30. adu namma ________.
a) adhyaapaka b) kaaLeeju c) Avalu d) vidyaarthi

Fill in the blanks by translating the given English word into kannada :

31. When _______
a) yaaru b) yaake c) yelli d) yaavaga

32. She ______
a) adu b) avalu c) idu d) avanu

33. Teacher _________
a) Shishya b) Shikshaka c) huDuga d) manushya

34. You__________
a) ninu b) nanna c) avana d) namma

35. Who ________
a) adu b) Idu c) yaaru d) eenu

Transform the following words of kannada as per given model :
(Example : saNNa- saNNadu)

36. doDDa :________
a) chikkadu b) udda
c) hosa d) doDDadu

37. chikka :_______
a) Chikkadu b) sanndu c) doDDadu d) Haleya

38. Nimma :______
a) avaLu b) nimmadu c) avara d) adu

Choose the appropriate word to fill in the blanks in each of the following sentences :
(eg : Naanu, uuTa (lunch) _______(maadu)
a) maaduttene b) maaDideya c) maaDisu d) maaDi

The right answer is (a) maaDuttene

39. leela iVattu bengalurige __________(hogu).
(Leela is on her way to Bangalore today)
a)howdu b) hoguttene c) ide d) hoguttale

40. nanna (me) Hattira (next) __________(kutka) (sit down next to me)
a)kunDru b) kooDu c) kuLituko d) none of these

41. namma (our) manege (home) _________(baa) (coming to our house).
a)baruttiya b) beDa c) bandi d) baru

42. Doctor Aushadi ___________(kodu) (The doctor gave me the medicine)
a)kelu b) heltare c) kottaru d) sigtare

43. Ninna ______(hesren)? What is your name?
a) hesarnu b) hesrenu c) hesaru enu d) hesaru En

44. Neenu appana hattira hogi ______(ninthu).
(you go to Dad and Stand up)
a)nillu b) ninthka c) ninthuko d) nindru

45. Mobile thumba _______thale novu baruthe (nodu)
(It hurts when you look at your mobile phone too much)
a)balake b) mathadu c) nodudre d) nodidare

46. adhyapakaru paatha _______ (mugisu).
The teacher finished the lesson
a)mugithu b) mukthaya c) mugisidaru d) madisu

Choose the equivalent kannada words to the English words given below :
(eg : night = raatri ; they = avaru)

47. Shop : _______
a) mane b) angadi c) kante d) dukan

48. Child :________
a)heNNu b) maanaVa c) mahiLe d) magu

49. Mother : _________
a)magalu b) Thande c) kanda d) Taayi

50. See : _______
a) nooDu b) iDu c) maaDu d) biDu

* * * * *

CBCS SCHEME

21KBK37

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

Question Paper Version : D

Third Semester B.Arch./B.Planning Degree Examination, Dec.2025/Jan.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.

Fill in the blanks with suitable words given :

1. nimma hesaru ________
a) adu b) edu c) eenu d) yaaru

2. iVanu namma _______
a)Tangi b) aNNa c) akka d) Taayi

3. __________ yaaru?
a) ninna b) nanna c) avana d) nivu

4. adu namma ________.
a)adhyaapaka b) kaaLeeju c) Avalu d) vidyaarthi

Translate the Kannada word into English :

5. Bekku : ________
a) Dog b) Pig c) Cow d) Cat

6. Pusthaka : ________
a) Pen b) Book c) Bag d) School

7. magu _______
a)Son b) daughter c) Elderson d) child

8. Mosaru __________
a) curd b) milk c) butter milk d) cream

9. mane __________
a)Garden b) home c) Forest d) Office

Translate the following English questions into kannada :

10. It is not my book.
a) Idu nanna pusthaka Alla b) Idu nanna pusthaka
c) Houdu nanna pusthaka d) Idu yaara pusthaka

11. Who is he?
a) Adu yaru b) Adu enu? c) Avanu yaaru d) Avalu yaaru

12. What is your mother tongue _____?
a)ninna thayi hesarenu?
b)nimma uru yaVudu?
c)nimma mathru bhomi yavudu?
d)nimma mathru bashe yavudu?

13. He is a boy.
a) Avanu Huduga b) ADu Huduga
c) Avalu huduga d) Avanu Yuvaka

14. Which is your state?
a)Karnataka b) Karaataka c) Kannataka d) Kannunataka

Transform the following words of kannada as per given model :
(Example : saNNa- saNNadu)

15. doDDa :_____
a) chikkadu b) udda
c) hosa d) doDDadu

16. chikka :_____
a)Chikkadu b) sanndu c) doDDadu d) Haleya

17. Nimma :_____
a) avaLu b) nimmadu c) avara d) adu

Use the following words in your own sentences:

18. AvaLu _____
a)adu avaLu b) avaLu nanna akka
c) avaLu nanna Anna d) Idu AvaLu

19. Vidyaarthi _____
a)Naanu college vidyaarthi b) Naanu Vyapari
c) Naanu Singer d) Naanu Badava

20. Maga _____
a) adu maga b) Idu magu c) edu nanna maga d) Nanna maga

21. Taayi _____
a) avalu nanna prithiya Taayi b) adu nanna Taayi
c) adakke Taayi d) avalu Taayi

Choose the equivalent kannada words to the English words given below :
(eg : night = raatri ; they = avaru)

22. Shop : _____
a) mane b) angadi c) kante d) dukan

23. Child :_____
a)heNNu b) maanaVa c) mahiLe d) magu

24. Mother : _________
a)magalu b) Thande c) kanda d) Taayi

25. See : _______
a) nooDu b) iDu c) maaDu d) biDu

Transform the following words of kannada as per the given model.
(Example : swamy – swamigaLu)

26. Mane :_______
a) manakke b) manege c) manegaLu d) maneadu

27. Pustaka :_________
a) pustakagaLu b) pustaka c) pustakana d) Dodda pustaka

28. Guru :_________
a) guruvige b) gurugalu c) guruvina d) guruvam

Choose the equivalent English words to the kannada words given below :
(eg : Sanje = evening ; naaVu = we)

29. Tarakari : _________
a) Potato b) Vegetable c) Lemon d) Fresh

30. hesaru: : _________
a)Name b) animals c) Naam d) Trees

31. Kurchi : :__________
a)Pen b) Chair c) Table d) Book

32. Anna : __________
a)Elder sister b) Younger brother c) Younger sister d) Elder brother

33. Taande : __________
a) Mother b) Father c) Sister d) Brother

Fill in the blanks by translating the given English word into kannada :

34. When _______
a)yaaru b) yaake c) yelli d) yaavaga

35. She ______
a) adu b) avalu c) idu d) avanu

36. Teacher _________
a)Shishya b) Shikshaka c) huDuga d) manushya

37. You__________
a)ninu b) nanna c) avana d) namma

38. Who ________
a)adu b) Idu c) yaaru d) eenu

Transform the following according to the model :

39. Model : ondu- ondaneya
Transform : modalu _____
a) modalane b) modalaneya c) modalu d) modala

40. Model : naanu - nanage
Transform : Neevu_____
a)Nimage b) Namage c) nimage d) NeeVuge

41. Model : Anna- Annandiru
Transform : Akka_____
a) Akkaru b) Akkandiru c) AkkaVaru d) Akka

42. Model : ondu- ondaneya
Transform : modalaneya_____
a)modalane b) modalaneya c) modalu d) modala

Choose the appropriate word to fill in the blanks in each of the following sentences :
(eg : Naanu, uuTa (lunch) _____(maadu)
a) maaduttene b) maaDideya c) maaDisu d) maaDi

The right answer is (a) maaDuttene

43. leela iVattu bengalurige _____(hogu).
(Leela is on her way to Bangalore today)
a)howdu b) hoguttene c) ide d) hoguttale

44. nanna (me) Hattira (next) _____(kutka) (sit down next to me)
a)kunDru b) kooDu c) kuLituko d) none of these

45. namma (our) manege (home) _____(baa) (coming to our house).
a)baruttiya b) beDa c) bandi d) baru

46. Doctor Aushadi _____(kodu) (The doctor gave me the medicine)
a)kelu b) heltare c) kottaru d) sigtare

47. Ninna _____(hesren)? What is your name?
a) hesarnu b) hesrenu c) hesaru enu d) hesaru En

48. Neenu appana hattira hogi _____(ninthu).
(you go to Dad and Stand up)
a)nillu b) ninthka c) ninthuko d) nindru

49. Mobile thumba _____thale novu baruthe (nodu)
(It hurts when you look at your mobile phone too much)
a)balake b) mathadu c) nodudre d) nodidare

50. adhyapakaru paatha _____ (mugisu).
The teacher finished the lesson
a)mugithu b) mukthaya c) mugisidaru d) madisu

* * * * *

CBCS SCHEME

21KSK37

USN | | | | | | | | | |

Question Paper Version : A

Third Semester B.Arch/B.Plan Degree Examination, Dec.2025/Jan.2026

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

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.

---

1. ಕಬ್ಬಿಗರ ಕಾವ್ಯ ಕೃತಿಯ ಕರ್ತೃ ಯಾರು?
   a) ಕುವೆಂಪು b) ಬೇಂದ್ರೆ c) ಅಂಡಯ್ಯ ಕವಿ d) ಶ್ರೀ ಕುಮಾರವ್ಯಾಸ

2. ಬಾಗದ ಭೋಗದಕ್ಕರದ ಗೇಯದ? ಎನ್ನುತ್ತಾ ಜೀವನ ರಸಿಕತೆಯ ಆದರ್ಶವನ್ನು ಸಾರಿದ ಕವಿ ಯಾರು?
   a) ಆದಿಕವಿ ಪಂಪ b) ಕಾಯಕ ತತ್ವ ಬಸವಣ್ಣ c) ಶ್ರೀಕುಮಾರವ್ಯಾಸ d) ರನ್ನ

3. ತನ್ನ ಒಡೆಯನೊಡನೆ ತಾನೂ ಸಾಯುವೆನೆಂದು ಪ್ರಮಾಣ ಮಾಡಿ ಆತ್ಮಹತ್ಯ ಮಾಡಿಕೊಳ್ಳುವವರಿಗೆ ____ ಎನ್ನುತ್ತಾರೆ
   a) ಸಿಡಿತಲೆ b) ವೇಳವಡಿಚ c) ಕೋಳ್ಗಂಟೆ d) ಮಾಸ್ತಿ

4. "ಕುರಿತೋದದೆಯಂ ಕಾವ್ಯ ಪ್ರಯೋಗ ಪರಿಣತಮತಿಗಳು ಈ ಸಾಲು ಯಾವ ಕಾವ್ಯದಲ್ಲಿ ಕಂಡು ಬರುತ್ತದೆ?
   a) ವಿಕ್ರಮಾರ್ಜುನ ವಿಜಯ b) ಕಬ್ಬಿಗರ ಕಾವ್ಯ c) ವಡ್ಡಾರಾಧನೆ d) ಕವಿರಾಜ ಮಾರ್ಗ

5. ಸುಮಾರು 1800 ರಲ್ಲಿ ಬಳ್ಳಾರಿ ಜಿಲ್ಲೆಯ ಕಲೆಕ್ಟರ್ ಆಗಿದ್ದರು ಯಾರು?

a) ರಾ.ಹ ದೇಶಪಾಂಡೆ b) ಥಾಮಸ್ ಮೆನ್ರೊ c) ಶ್ರೀರಂಗರು d) ವಿಶ್ವೇಶ್ವರಯ್ಯ

6. ಕರ್ನಾಟಕ ಏಕೀಕರಣ ವಾದ ವರ್ಷ ಯಾವುದು?

a) 1947 b) 1955 c) 1956 d) 1973

7. ಬೀದರ್ ನಗರದಲ್ಲಿ ಕನ್ನಡ ಪ್ರಚಾರ ಮಾಡಲು ಪರಿಷತ್ತಿನ ಸಮಿತಿಯವರು ಪ್ರಯಾಣ ಮಾಡದ್ದು.

a) ಕತ್ತೆ b) ಆನೆ c) ಎತ್ತಿನ ಗಾಡಿ d) ಕುದುರೆ

8. ಕನ್ನಡ ಭಾಷೆಯನ್ನು ಸುಮಾರು ಎಷ್ಟು ದಶಲಕ್ಷ ಜನರು ಆಡುನುಡಿಯಾಗಿ ಬಳಸುತ್ತಾರೆ.

a) 50 ದಶಲಕ್ಷ b) 60 ದಶಲಕ್ಷ c) 80 ದಶಲಕ್ಷ d) 25 ದಶಲಕ್ಷ

9. ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಲಿಪಿಗಳ ರಾಣಿ ಎಂದು ಕರೆದವರು ಯಾರು?

a) ಲಲಿತಾನಾಯಕ್ b) ವಿನೋಬಾ ಭಾವೆ c) ಇಂದಿರಾ ಎಂ.ಕೆ d) ಕುವೆಂಪು

10. ಹುಲಿಗಂಜಿ ಹುತ್ತವ ಹೊಕ್ಕಡೆ ___ ತಿಂಬುದ ಮಾಬುದೇ?

a) ಕರ್ಮ b) ಹುಲಿ c) ಸರ್ಪ d) ಕಾಲ

11. ಅಲ್ಲಮ ಪ್ರಭುವಿನ ಅಂಕಿತನಾಮ

a) ಗುಹೇಶ್ವರ b) ಕೂಡಲಸಂಗಮದೇವ c) ರಾಮನಾಥ d) ಸೋಮನಾಥ

12. 'ಕರಿ' ಪದದ ಅರ್ಥ

a) ಆನೆ b) ತುರಗ c) ಹಯ d) ಕಲಿ

13. ಪುರಂದರ ದಾಸರ ಜನ್ಮಸ್ಥಳ

a) ಕಾಗಿನೆಲೆ b) ಪುರಂದರಗಡ c) ಕೋಳಿವಾಡ d) ಶಿಕಾರಿಪುರ

14. ಕೀರ್ತನೆಗಳ ಗಾಡನಂಬಿಕೆ ಏನು?

a) ವಾಯು ಜೀವೊತ್ತಮ b) ಹರ ವೈಷ್ಣವೊತ್ತಮ

c) ಮನೆಯೇ ಮಂತ್ರಾಲಯ d) ಹರಿಯೇ ಸರ್ವೋತ್ತಮ

15. ಕರದಲ್ಲಿ ಜಪಮಾಲೆ ಮಣಿಗಳನ್ನು ಹಿಡಿದ್ದಿದ್ದರು ಬಾಯಲ್ಲಿ ಆಡುವುದು ಏನು?

a) ಮನನಿಂದನೆ b) ಭಾವನಾತ್ಮಕ ನಿಂದನೆ

c) ಪರನಿಂದನೆ d) ಆತ್ಮನಿಂದನೆ

16. ಸಾಬಾಣ ಪದದ ಅರ್ಥವೇನು?
a) ಕೊರಳು b) ಮೂಳೆ c) ಮಾಲೆ d) ಸಾಬುನು

17. ಎಂತಹ ಅವಿಗೆಯನ್ನು ಮುಚ್ಚಬೇಕು.
a) ಭಕ್ತಿ ಎಂಬ ಅವಿಗೆ b) ಆಚಾರ ಎಂಬ ಅವಿಗೆ c) ಗುಣ d) ಧ್ಯಾನ

18. ಮೂರು ಕಾಸಿಗೊಂದು ಕುಡುಕಿ ಮಾರಿ _____ ಕಾಸಿಗೊಂದು ಗಡಿಗೆಯ ಮಾರಿ
a) ಹತ್ತು b) ಐದು c) ಇಪ್ಪತ್ತು d) ಆರು

19. ಬೆಲ್ಲ ಸಕ್ಕರೆಯಾಗು _____
a) ಶ್ರೀಮಂತರಿಗೆ b) ಮಧ್ಯಮವರ್ಗದವರಿಗೆ c) ಬಡವರಿಗೆ d) ದೀನ ದುರ್ಬಲರಿಗೆ

20. ಡಿ.ವಿ.ಜಿ ಯವರ ಜನಪ್ರಿಯ ಕೃತಿ
a) ಉಮರನ ಬಸಗೆ b) ನಿವೇದನೆ c) ಮಂಕುತಿಮ್ಮನ ಕಗ್ಗ d) ಕುಸುಮಾಂಜಲಿ

21. ಯಾರ ಎಲುಬನ್ನು ಕಾಂಚಾಣ ಕಿರುಗಜ್ಜೆಯಾಗಿ ಮಾಡಿಕೊಂಡಿದೆ?
a) ಮಕ್ಕಳ b) ಮುದುಕರು c) ಹೆಂಗಸರು d) ಬಾಣಂತಿ

22. ಕುರುಡು ಕಾಂಚಾಣಾದ ಕುಣಿತ ಮಾಮೂಲು ಕುಣಿತವಲ್ಲ ಅದು_____
a) ಶ್ರಾಸ್ತ್ರೀಯ b) ಸಕೃತಿ c) ಹವ್ಯಾಸಿ d) ವಿಕೃತಿಯ ಮೊತ್ತ

23. 'ದ್ರವ್ಯ' ಎಂದರೆ?
a) ಹಣ/ಸಂಪತ್ತು b) ಶೂದ್ರ c) ಅರಿವು d) ನಡೆನುಡಿ

24. ಸಂಸ್ಕೃತಿಯ ಹೆಸರಿಂದ ಶ್ರೀಮಂತರೊಡ್ಡುವಾ ಬಲೆ ನಿಮಗೆ_____
a) ವರದಾನ b) ಮೃತ್ಯು c) ಹಾಲಿನ ಕಡಲು d) ಪಂಚಾಮೃತ

25. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಯಾವ ಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ ಜೀವಂತರಾಗಿದ್ದಾರೆ
a) ಮಂಡ್ಯ b) ಹಾಸನ c) ದಕ್ಷಿಣ ಕನ್ನಡ d) ಕೋಲಾರ

26. ಭದ್ರಾವತಿ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆಯ ಮೇಲ್ವಿಚಾರಕರಾಗಿ ಕೆಲಸ ನಿರ್ವಹಿಸುತ್ತಿದ್ದ ಅಮೇರಿಕಾದ ಅಧಿಕಾರಿಯ ಹೆಸರು.
a) ಬ್ಲಾಸ್ಟ್ ಫರ್ನೇಸಿನ b) ರೆಸಲ್ ಜಾನ್ ಚ್ರಾನ್
c) ಬ್ರಿಯಾನ್ ಹೀತ್ d) ಗ್ಲೋರಿಯಾ ಬರ್ಬೆನಾ

27. ಮಂಡ್ಯ ಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ, ಅಲ್ಲಿಯ ಜನರ ಅಭ್ಯುದಯದಲ್ಲಿ ಜೀವಂತರಾಗಿರುವವರು ಯಾರು?
a) ನಾಲ್ವಡಿ ಕೃಷ್ಣರಾಜ ಒಡೆಯರ್ b) ದೇವರಾಜ್ ಅರಸ್
c) ವಿಶ್ವೇಶ್ವರಯ್ಯ d) ಅಂಬೇಡ್ಕರ್

28. ಕ್ರಿ.ಪೂ __ ವರ್ಷಗಳಿಂದಲೂ ಭಾರತೀಯ ಕರಕುಶಲಕಲೆಗಳಿಗೆ ಅಪಾರ ಬೇಡಿಕೆ ಇದೆ.
a) 1500 b) 3000 c) 2500 d) 2000

29. ಭಾರತದಲ್ಲಿ ತಯಾರಾದ ಬಟ್ಟೆಗಳಿಗೆ ಯಾವ ಯಾವ ದೇಶಗಳಲ್ಲಿ ಅಪಾರ ಬೇಡಿಕೆ ಇತ್ತು.
a) ಗ್ರೀಸ್, ಏಷಿಯಾ ಮೈನರ್, ಅರೇಬಿಯಾ ಹಾಗು ಮೆಡಿಟರೇನಿಯನ್
b) ಅಮೇರಿಕಾ, ಜರ್ಮನ್, ಅರೇಬಿಯಾ
c) ಬ್ರಿಟನ್, ಲಂಡನ್, ಮೆಡಿಟರೇನಿಯನ್
d) ಪಾಕಿಸ್ತಾನ್, ರಷ್ಯ, ಗ್ರೀಸ್

30. ಬಟ್ಟೆಯ ಮೇಲಿನ ಮುದ್ರಣ ಕಲೆಗೆ ಮೂಲ ನೆಲೆಯಾದ ದೇಶ _____
a) ಅಮೇರಿಕಾ b) ಬ್ರಿಟನ್ c) ಜರ್ಮನ್ d) ಭಾರತ

31. ಭಾರತದಲ್ಲಿ ಬೇರೆ ಬೇರೆ ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಸುಮಾರು ____ ಗಿಡಗಳಿವೆ.
a) 300 b) 500 c) 200 d) 100

32. ಸಿವಿಲ್ ಸರ್ವಿಸ್ ರೂಲ್ಸ (Civil Service Rules) ಎಂದರೆ.
a) ಸಿವಿಲ್ ಕಾಮಗಾರಿ b) ನಾಗರಿಕ ಸೇವಾ ನಿಯಮ
c) ನಾಗರೀಕ ನೀತಿ ಸಂಹಿತೆ d) ರಹಸ್ಯ ದಾಖಲೆ

33. 'ಯುಗಾದಿ' ಕತೆಯಲ್ಲಿ ಬದಲಾದ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳಿಂದ ಒದ್ದಾಡುತ್ತಿರುವ ಹಿರಿಯ ಜೀವ ____
a) ಗೋಪಣ್ಣ ಮಾಸ್ತರ್ b) ವಸುದೇಂದ್ರ c) ವೆಂಕಣ್ಣ d) ಪ್ರಹ್ಲಾದ

34. ಗೋಪಣ್ಣ ಮಾಸ್ತರರ ಆತ್ಮೀಯ ಗೆಳೆಯ
a) ಕಾಸೀಂ ಸಾಹೇಬರು b) ನರಸಿಂಹ ಮೂರ್ತಿ c) ಅಂಬಾನಿ d) ಕಂಬಾರರು

35. 'ಯುಗಾದಿ' ಕತೆಯನ್ನು ಬರೆದವರು.
a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ b) ಸಿದ್ದಲಿಂಗಯ್ಯ c) ವಸುದೇಂದ್ರ d) ಸುದರ್ಶನ ದೇಸಾಯಿ

36. "ಗಿಡ್ಡ ಪುಣಾಣಿ ಮಕ್ಕಳರಾಣಿ" ಅಂತ ಗೋಪಣ್ಣ ಮಾಸ್ತರು ಯಾರನ್ನು ಕರೆಯುತ್ತಿದ್ದರು.
a) ರೇಖಾ b) ಚಾಂದಿನಿ c) ಅಕ್ಕಸಾಲಿಗರ ಗಂಗಣ್ಣನ ಮಗಳು ರಾಧ d) ರುಕ್ಮಿಣಿ

37. ಜಾನಪದ ಅಕಾಡೆಮಿಯ ಅಧ್ಯಕ್ಷರಾಗಿದ್ದವರು?

a) ಡಾ.ಹಿ.ಚಿ ಬೋರಲಿಂಗಯ್ಯ b) ಶ್ರೀ. ಎಸ್. ಕೆ. ಕರೀಂಖಾನ್

c) ಕರೀಗೌಡ ಬೀಚನ ಹಳ್ಳಿ d) ಡಾ.ಎಲ್. ತಿಮ್ಮೇಶ್

38. 'ಹಾಡಹಳ್ಳಿಗೆ' ಹಿಂದೆ ಯಾವ ಹೆಸರಿತ್ತು?

a) ಸಂಗೀತಪುರ b) ಮಲೆನಾಡು c) ನಾಗವಳ್ಳಿ d) ಜೈನಪುರ

39. ಕುಣಬಿ ಜನಾಂಗದವರು ಮೂಲತ: ಯಾವ ರಾಜ್ಯದ ಹಿನ್ನಲೆ ಹೊಂದಿದ್ದಾರೆ.

a) ಕರ್ನಾಟಕ b) ಆಂದ್ರ c) ತಮಿಳುನಾಡು d) ಗೋವಾ

40. ಹೋಳಿ, ಸಿಗ್ಮಾನರ್ತನ, ಕೋಲಪದಗಮಟೆ ಪದಗಳ ರಸಔತಣ ಇವು ಕುಣಿಬಿಯರ ______

a) ಮಾತುಗಳು b) ಕಾಡುಗಳು c) ಆಭರಣಗಳು d) ನೃತ್ಯಗಳು

41. ಕುಣಿಬಿಯವರ ಜಾನಪದ ಸೊಲ್ಲಿನ ಆರಂಭ

a) ಗುರವಂದನಾ

b) ಗಣೇಶ ಸ್ತುತಿ

c) ಸ್ವಾಮಿ ಶರಣು ದೇವಕೋ ಸ್ವಾಮಿ ಶರಣು ದೇವಕೋ

d) ಸರಸ್ವತಿನಮಸ್ತುಭ್ಯಂ ವರದೀ ಕಾಮರೂಪಿಣಿ

42 ನಾಗವಳ್ಳಿಯಲ್ಲಿ ಲೇಖಕರಿಗೆ ಮಾರ್ಗದರ್ಶಕರಾಗಿದ್ದರು

a) ದೇವರ ಕುಪ್ಪಯ್ಯ, ಗೊಂಡರ ಕರಿಯ b) ಶ್ರೀ. ಎಸ್.ಕೆ ಕರೀಂಖಾನ್

c) ಶ್ರೀನಿವಾಸಮೂರ್ತಿ d) 70 ವರ್ಷದ ಗಣೇಶ

43. ದುಡಿತದ ಆಯಾಸವನ್ನು ಮರೆ ಮಾಚಲು ಮೆಗಾನೆಯವರ ನಾದ

a) ಕಹಳೆ b) ತಾಳ ಮತ್ತು ಮದ್ದಳೆ c) ಪಿಟಿಲು d) ಗಿಟಾರ್

44. ಮೆಗಾನೆ ಕುಣಬಿಯರ ಜನಸಂಖ್ಯೆ ಸರಿ ಸುಮಾರು

a) 150 b)160 c) 170 d) 180

45. ಕುಣಬಿಯರ ಸಂಭ್ರಮದ ಹಬ್ಬದ ನರ್ತನ

a) ಜನಪದ b) ಹೋಳಿಸಿಗ್ಮಾ c) ಯಕ್ಷಗಾನ d) ಲಂಬಾಣಿನೃತ್ಯ

46. ಕುವೆಂಪುರವರ ಯಾವ ಕೃತಿಗೆ 'ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿ' ಯನ್ನು ಪಡೆದಿದೆ.

a) ಸ್ಮಶಾನ ಕುರಕ್ಷೇತ್ರ b) ಶ್ರೀರಾಮಾಯಣ ದರ್ಶನಂ

c) ಮಲೆಗಳಲ್ಲಿ ಮದುಮಗಳು d) ಕಾನೂರು ಹೆಗ್ಗಡತಿ

47. ರಾಷ್ಟ್ರಕವಿ ಕುವೆಂಪು ವಿರಚಿತ ನಾಡಗೀತೆ
    a) ಜಯ ಭಾರತ ಜನನಿಯ ತನುಜಾತೆ
    b) ಜೋಗದ ಸಿರಿ ಬೆಳಕಿನಲ್ಲಿ
    c) ಏರುತಿಹದು ಹಾರುತಿಹುದು ನೋಡು ನಮ್ಮ ಬಾವುಟ
    d) ಜನಗಣಮನ

48. 'ಕಾಂಕಾರ' - ಎಂಬುದಕ್ಕೆ ಸಮಾನಾರ್ಥಕ ಪದಗಳನ್ನು ಬರೆಯಿರಿ
    a) ಅಡವಿ, ಅರಣ್ಯ, ಕಠಿಣವಾದ ದಾರಿ
    b) ಕಾಡು, ಬೆಟ್ಟಗಿಡ
    c) ವರಾಹ, ದೈವ
    d) ಅರಣ್ಯಭೂಮಿ

49. 'ಮನೆಯಿಂದ' ಇದು ಯಾವ ವಿಭಕ್ತಿ
    a) ಪ್ರಥಮ b) ದ್ವಿತೀಯ c) ತೃತೀಯ d) ಪಂಚಮಿ

50. ನಾನು ಚಿಕನ್ ಬಿರಯಾನಿ ಮಾಡಿದ್ರೆ ನಿಮಗೆ ಬೇಕಾಗಲ್ಲ ಅಲ್ಲಾ? ಎಂದದ್ದು
    a) ರುಕ್ಮಿಣಿಯಮ್ಮ b) ನಿರ್ಮಳಾ c) ರೇಖಾ d) ಪ್ರಹ್ಲಾದ

* * * * *

21KSK37

USN | | | | | | | | | |

Question Paper Version : B

Third Semester B.Arch/B.Plan Degree Examination, Dec.2025/Jan.2026

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

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.

---

1. ಕುಣಬಿಯವರ ಜಾನಪದ ಸೊಲ್ಲಿನ ಆರಂಭ
   a) ಗುರವಂದನಾ
   b) ಗಣೇಶ ಸ್ತುತಿ
   c) ಸ್ವಾಮಿ ಶರಣು ದೇವಕೋ ಸ್ವಾಮಿ ಶರಣು ದೇವಕೋ
   d) ಸರಸ್ವತಿನಮಸ್ತುಭ್ಯಂ ವರದೀ ಕಾಮರೂಪಿಣಿ

2. ನಾಗವಳ್ಳಿಯಲ್ಲಿ ಲೇಖಕರಿಗೆ ಮಾರ್ಗದರ್ಶಕರಾಗಿದ್ದರು
   a) ದೇವರ ಕುಪ್ಪಯ್ಯ, ಗೊಂಡರ ಕರಿಯ b) ಶ್ರೀ. ಎಸ್.ಕೆ ಕರೀಂಖಾನ್
   c) ಶ್ರೀನಿವಾಸಮೂರ್ತಿ d) 70 ವರ್ಷದ ಗಣೇಶ

3. ದುಡಿತದ ಆಯಾಸವನ್ನು ಮರೆ ಮಾಚಲು ಮೆಗಾನೆಯವರ ನಾದ
   a) ಕಹಳೆ b) ತಾಳ ಮತ್ತು ಮದ್ದಳೆ c) ಪಿಟಿಲು d) ಗಿಟಾರ್

4. ಮೆಗಾನೆ ಕುಣಬಿಯರ ಜನಸಂಖ್ಯೆ ಸರಿ ಸುಮಾರು
   a) 150 b)160 c) 170 d) 180

5. ಕುಣಬಿಯರ ಸಂಭ್ರಮದ ಹಬ್ಬದ ನರ್ತನ
a) ಜನಪದ b) ಹೋಳಿಸಿಗ್ಮಾ c) ಯಕ್ಷಗಾನ d) ಲಂಬಾಣಿನೃತ್ಯ

6. ಕುವೆಂಪುರವರ ಯಾವ ಕೃತಿಗೆ 'ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿ' ಯನ್ನು ಪಡೆದಿದೆ.
a) ಸ್ಮಶಾನ ಕುರಕ್ಷೇತ್ರ b) ಶ್ರೀರಾಮಾಯಣ ದರ್ಶನಂ
c) ಮಲೆಗಳಲ್ಲಿ ಮದುಮಗಳು d) ಕಾನೂರು ಹೆಗ್ಗಡತಿ

7. ರಾಷ್ಟ್ರಕವಿ ಕುವೆಂಪು ವಿರಚಿತ ನಾಡಗೀತೆ
a) ಜಯ ಭಾರತ ಜನನಿಯ ತನುಜಾತೆ
b) ಜೋಗದ ಸಿರಿ ಬೆಳಕಿನಲ್ಲಿ
c) ಏರುತಿಹದು ಹಾರುತಿಹುದು ನೋಡು ನಮ್ಮ ಬಾವುಟ
d) ಜನಗಣಮನ

8. 'ಕಾಂಕಾರ' - ಎಂಬುದಕ್ಕೆ ಸಮಾನಾರ್ಥಕ ಪದಗಳನ್ನು ಬರೆಯಿರಿ
a) ಅಡವಿ, ಅರಣ್ಯ, ಕಠಿಣವಾದ ದಾರಿ
b) ಕಾಡು, ಬೆಟ್ಟಗಿಡ
c) ವರಾಹ, ದೈವ
d) ಅರಣ್ಯಭೂಮಿ

9. 'ಮನೆಯಿಂದ' ಇದು ಯಾವ ವಿಭಕ್ತಿ
a) ಪ್ರಥಮ b) ದ್ವಿತಿಯ c) ತೃತೀಯ d) ಪಂಚಮಿ

10. ನಾನು ಚಿಕನ್ ಬಿರಯಾನಿ ಮಾಡಿದ್ರೆ ನಿಮಗೆ ಬೇಕಾಗಲ್ಲ ಅಲ್ವಾ? ಎಂದದ್ದು
a) ರುಕ್ಮಿಣಿಯಮ್ಮ b) ನಿರ್ಮಳಾ c) ರೇಖಾ d) ಪ್ರಹ್ಲಾದ

11. ಭಾರತದಲ್ಲಿ ಬೇರೆ ಬೇರೆ ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಸುಮಾರು ____ ಗಿಡಗಳಿವೆ.
a) 300 b) 500 c) 200 d) 100

12. ಸಿವಿಲ್ ಸರ್ವಿಸ್ ರೂಲ್ಸ (Civil Service Rules) ಎಂದರೆ.
a) ಸಿವಿಲ್ ಕಾಮಗಾರಿ b) ನಾಗರಿಕ ಸೇವಾ ನಿಯಮ
c) ನಾಗರೀಕ ನೀತಿ ಸಂಹಿತೆ d) ರಹಸ್ಯ ದಾಖಲೆ

13. 'ಯುಗಾದಿ' ಕತೆಯಲ್ಲಿ ಬದಲಾದ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳಿಂದ ಒದ್ದಾಡುತ್ತಿರುವ ಹಿರಿಯ ಜೀವ ____
a) ಗೋಪಣ್ಣ ಮಾಸ್ತರ್ b) ವಸುದೇಂದ್ರ c) ವೆಂಕಣ್ಣ d) ಪ್ರಹ್ಲಾದ

14. ಗೋಪಣ್ಣ ಮಾಸ್ತರರ ಆತ್ಮೀಯ ಗೆಳೆಯ

a) ಕಾಸೀಂ ಸಾಹೇಬರು b) ನರಸಿಂಹ ಮೂರ್ತಿ c) ಅಂಬಾನಿ d) ಕಂಬಾರರು

15. 'ಯುಗಾದಿ' ಕತೆಯನ್ನು ಬರೆದವರು.

a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ b) ಸಿದ್ದಲಿಂಗಯ್ಯ c) ವಸುದೇಂದ್ರ d) ಸುದರ್ಶನ ದೇಸಾಯಿ

16. "ಗಿಡ್ಡ ಪುಣಾಣಿ ಮಕ್ಕಳರಾಣಿ" ಅಂತ ಗೋಪಣ್ಣ ಮಾಸ್ತರು ಯಾರನ್ನು ಕರೆಯುತ್ತಿದ್ದರು.

a) ರೇಖಾ b) ಚಾಂದಿನಿ c) ಅಕ್ಕಸಾಲಿಗರ ಗಂಗಣ್ಣನ ಮಗಳು ರಾಧ d) ರುಕ್ಮೀಣಿ

17. ಜಾನಪದ ಅಕಾಡೆಮಿಯ ಅಧ್ಯಕ್ಷರಾಗಿದ್ದವರು?

a) ಡಾ.ಹಿ.ಚಿ ಬೋರಲಿಂಗಯ್ಯ b) ಶ್ರೀ. ಎಸ್. ಕೆ. ಕರೀಂಖಾನ್

c) ಕರೀಗೌಡ ಬೀಚನ ಹಳ್ಳಿ d) ಡಾ.ಎಲ್. ತಿಮ್ಮೇಶ್

18. 'ಹಾಡಹಳ್ಳಿಗೆ' ಹಿಂದೆ ಯಾವ ಹೆಸರಿತ್ತು?

a) ಸಂಗೀತಪುರ b) ಮಲೆನಾಡು c) ನಾಗವಳ್ಳಿ d) ಜೈನಪುರ

19. ಕುಣಬಿ ಜನಾಂಗದವರು ಮೂಲತ: ಯಾವ ರಾಜ್ಯದ ಹಿನ್ನಲೆ ಹೊಂದಿದ್ದಾರೆ.

a) ಕರ್ನಾಟಕ b) ಆಂದ್ರ c) ತಮಿಳುನಾಡು d) ಗೋವಾ

20. ಹೋಳಿ, ಸಿಗ್ಮಾನರ್ತನ, ಕೋಲಪದಗಮಟೆ ಪದಗಳ ರಸಔತಣ ಇವು ಕುಣಿಬಿಯರ ______

a) ಮಾತುಗಳು b) ಕಾಡುಗಳು c) ಆಭರಣಗಳು d) ನೃತ್ಯಗಳು

21. ಅಲ್ಲಮ ಪ್ರಭುವಿನ ಅಂಕಿತನಾಮ

a) ಗುಹೇಶ್ವರ b) ಕೂಡಲಸಂಗಮದೇವ c) ರಾಮನಾಥ d) ಸೋಮನಾಥ

22. 'ಕರಿ' ಪದದ ಅರ್ಥ

a) ಆನೆ b) ತುರಗ c) ಹಯ d) ಕಲಿ

23. ಪುರಂದರ ದಾಸರ ಜನ್ಮಸ್ಥಳ

a) ಕಾಗಿನೆಲೆ b) ಪುರಂದರಗಡ c) ಕೋಳಿವಾಡ d) ಶಿಕಾರಿಪುರ

24. ಕೀರ್ತನೆಗಳ ಗಾಡನಂಬಿಕೆ ಏನು?

a) ವಾಯು ಜೀವೊತ್ತಮ b) ಹರ ವೈಷ್ಣವೊತ್ತಮ

c) ಮನೆಯೇ ಮಂತ್ರಾಲಯ d) ಹರಿಯೇ ಸರ್ವೋತ್ತಮ

25. ಕರದಲ್ಲಿ ಜಪಮಾಲೆ ಮಣಿಗಳನ್ನು ಹಿಡಿದ್ದಿದ್ದರು ಬಾಯಲ್ಲಿ ಆಡುವುದು ಏನು?

a) ಮನನಿಂದನೆ b) ಭಾವನಾತ್ಮಕ ನಿಂದನೆ

c) ಪರನಿಂದನೆ d) ಆತ್ಮನಿಂದನೆ

26. ಸಾಬಾಣ ಪದದ ಅರ್ಥವೇನು?

a) ಕೊರಳು b) ಮೂಳೆ c) ಮಾಲೆ d) ಸಾಬುನು

27. ಎಂತಹ ಅವಿಗೆಯನ್ನು ಮುಚ್ಚಬೇಕು.

a) ಭಕ್ತಿ ಎಂಬ ಅವಿಗೆ b) ಆಚಾರ ಎಂಬ ಅವಿಗೆ c) ಗುಣ d) ಧ್ಯಾನ

28. ಮೂರು ಕಾಸಿಗೊಂದು ಕುಡುಕಿ ಮಾರಿ _____ ಕಾಸಿಗೊಂದು ಗಡಿಗೆಯ ಮಾರಿ

a) ಹತ್ತು b) ಐದು c) ಇಪ್ಪತ್ತು d) ಆರು

29. ಬೆಲ್ಲ ಸಕ್ಕರೆಯಾಗು _____

a) ಶ್ರೀಮಂತರಿಗೆ b) ಮದ್ಯಮವರ್ಗದವರಿಗೆ c) ಬಡವರಿಗೆ d) ದೀನ ದುರ್ಬಲರಿಗೆ

30. ಡಿ.ವಿ.ಜಿ ಯವರ ಜನಪ್ರಿಯ ಕೃತಿ

a) ಉಮರನ ಬಸಗೆ b) ನಿವೇದನೆ c) ಮಂಕುತಿಮ್ಮನ ಕಗ್ಗ d) ಕುಸುಮಾಂಜಲಿ

31. ಕಬ್ಬಿಗರ ಕಾವ್ಯ ಕೃತಿಯ ಕರ್ತೃ ಯಾರು?

a) ಕುವೆಂಪು b) ಬೇಂದ್ರೆ c) ಅಂಡಯ್ಯ ಕವಿ d) ಶ್ರೀ ಕುಮಾರವ್ಯಾಸ

32. ಬಾಗದ ಭೋಗದಕ್ಕರದ ಗೇಯದ? ಎನ್ನುತ್ತಾ ಜೀವನ ರಸಿಕತೆಯ ಆದರ್ಶವನ್ನು ಸಾರಿದ ಕವಿ ಯಾರು?

a) ಆದಿಕವಿ ಪಂಪ b) ಕಾಯಕ ತತ್ವ ಬಸವಣ್ಣ c) ಶ್ರೀಕುಮಾರವ್ಯಾಸ d) ರನ್ನ

33. ತನ್ನ ಒಡೆಯನೊಡನೆ ತಾನೂ ಸಾಯುವೆನೆಂದು ಪ್ರಮಾಣ ಮಾಡಿ ಆತ್ಮಹತ್ಯ ಮಾಡಿಕೊಳ್ಳುವವರಿಗೆ ____ ಎನ್ನುತ್ತಾರೆ

a) ಸಿಡಿತಲೆ b) ವೇಳವಡಿಚ c) ಕೋಳ್ಗಂಟೆ d) ಮಾಸ್ತಿ

34. “ಕುರಿತೋದದೆಯಂ ಕಾವ್ಯ ಪ್ರಯೋಗ ಪರಿಣತಮತಿಗಳು ಈ ಸಾಲು ಯಾವ ಕಾವ್ಯದಲ್ಲಿ ಕಂಡು ಬರುತ್ತದೆ?

a) ವಿಕ್ರಮಾರ್ಜುನ ವಿಜಯ b) ಕಬ್ಬಿಗರ ಕಾವ್ಯ c) ವಡ್ಡಾರಾಧನೆ d) ಕವಿರಾಜ ಮಾರ್ಗ

35. ಸುಮಾರು 1800 ರಲ್ಲಿ ಬಳ್ಳಾರಿ ಜಿಲ್ಲೆಯ ಕಲೆಕ್ಟರ್ ಆಗಿದ್ದರು ಯಾರು?

a) ರಾ.ಹ ದೇಶಪಾಂಡೆ b) ಥಾಮಸ್ ಮೆನ್ರೊ c) ಶ್ರೀರಂಗರು d) ವಿಶ್ವೇಶ್ವರಯ್ಯ

36. ಕರ್ನಾಟಕ ಏಕೀಕರಣ ವಾದ ವರ್ಷ ಯಾವುದು?
a) 1947 b) 1955 c) 1956 d) 1973

37. ಬೀದರ್ ನಗರದಲ್ಲಿ ಕನ್ನಡ ಪ್ರಚಾರ ಮಾಡಲು ಪರಿಷತ್ತಿನ ಸಮಿತಿಯವರು ಪ್ರಯಾಣ ಮಾಡದ್ದು.
a) ಕತ್ತೆ b) ಆನೆ c) ಎತ್ತಿನ ಗಾಡಿ d) ಕುದುರೆ

38. ಕನ್ನಡ ಭಾಷೆಯನ್ನು ಸುಮಾರು ಎಷ್ಟು ದಶಲಕ್ಷ ಜನರು ಆಡುನುಡಿಯಾಗಿ ಬಳಸುತ್ತಾರೆ.
a) 50 ದಶಲಕ್ಷ b) 60 ದಶಲಕ್ಷ c) 80 ದಶಲಕ್ಷ d) 25 ದಶಲಕ್ಷ

39. ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಲಿಪಿಗಳ ರಾಣಿ ಎಂದು ಕರೆದವರು ಯಾರು?
a) ಲಲಿತಾನಾಯಕ್ b) ವಿನೋಬಾ ಭಾವೆ c) ಇಂದಿರಾ ಎಂ.ಕೆ d) ಕುವೆಂಪು

40. ಹುಲಿಗಂಜಿ ಹುತ್ತವ ಹೊಕ್ಕಡೆ ___ ತಿಂಬುದ ಮಾಬುದೇ?
a) ಕರ್ಮ b) ಹುಲಿ c) ಸರ್ಪ d) ಕಾಲ

41. ಯಾರ ಎಲುಬನ್ನು ಕಾಂಚಾಣ ಕಿರುಗಜ್ಜೆಯಾಗಿ ಮಾಡಿಕೊಂಡಿದೆ?
a) ಮಕ್ಕಳ b) ಮುದುಕರು c) ಹೆಂಗಸರು d) ಬಾಣಂತಿ

42 ಕುರುಡು ಕಾಂಚಾಣಾದ ಕುಣಿತ ಮಾಮೂಲು ಕುಣಿತವಲ್ಲ ಅದು _____
a) ಶ್ರಾಸ್ತ್ರೀಯ b) ಸಕೃತಿ c) ಹವ್ಯಾಸಿ d) ವಿಕೃತಿಯ ಮೊತ್ತ

43. 'ದ್ರವ್ಯ' ಎಂದರೆ?
a) ಹಣ/ಸಂಪತ್ತು b) ಶೂದ್ರ c) ಅರಿವು d) ನಡೆನುಡಿ

44. ಸಂಸ್ಕೃತಿಯ ಹೆಸರಿಂದ ಶ್ರೀಮಂತರೊಡ್ಡುವಾ ಬಲೆ ನಿಮಗೆ_____
a) ವರದಾನ b) ಮೃತ್ಯು c) ಹಾಲಿನ ಕಡಲು d) ಪಂಚಾಮೃತ

45. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಯಾವ ಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ ಜೀವಂತರಾಗಿದ್ದಾರೆ
a) ಮಂಡ್ಯ b) ಹಾಸನ c) ದಕ್ಷಿಣ ಕನ್ನಡ d) ಕೋಲಾರ

46. ಭದ್ರಾವತಿ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆಯ ಮೇಲ್ವಿಚಾರಕರಾಗಿ ಕೆಲಸ ನಿರ್ವಹಿಸುತ್ತಿದ್ದ ಅಮೇರಿಕಾದ ಅಧಿಕಾರಿಯ ಹೆಸರು.
a) ಬ್ಲಾಸ್ಟ್ ಫರ್ನೇಸಿನ b) ರೆಸಲ್ ಜಾನ್ ಚ್ರಾನ್
c) ಬ್ರಿಯಾನ್ ಹೀತ್ d) ಗ್ಲೋರಿಯಾ ಬರ್ಬೆನಾ

47. ಮಂಡ್ಯ ಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ, ಅಲ್ಲಿಯ ಜನರ ಅಭ್ಯುದಯದಲ್ಲಿ ಜೀವಂತರಾಗಿರುವವರು ಯಾರು?
a) ನಾಲ್ವಡಿ ಕೃಷ್ಣರಾಜ ಒಡೆಯರ್ b) ದೇವರಾಜ್ ಅರಸ್
c) ವಿಶ್ವೇಶ್ವರಯ್ಯ d) ಅಂಬೇಡ್ಕರ್

48. ಕ್ರಿ.ಪೂ __ ವರ್ಷಗಳಿಂದಲೂ ಭಾರತೀಯ ಕರಕುಶಲಕಲೆಗಳಿಗೆ ಅಪಾರ ಬೇಡಿಕೆ ಇದೆ.
a) 1500 b) 3000 c) 2500 d) 2000

49. ಭಾರತದಲ್ಲಿ ತಯಾರಾದ ಬಟ್ಟೆಗಳಿಗೆ ಯಾವ ಯಾವ ದೇಶಗಳಲ್ಲಿ ಅಪಾರ ಬೇಡಿಕೆ ಇತ್ತು.
a) ಗ್ರೀಸ್, ಏಷಿಯಾ ಮೈನರ್, ಅರೇಬಿಯಾ ಹಾಗು ಮೆಡಿಟರೇನಿಯನ್
b) ಅಮೇರಿಕಾ, ಜರ್ಮನ್, ಅರೇಬಿಯಾ
c) ಬ್ರಿಟನ್, ಲಂಡನ್, ಮೆಡಿಟರೇನಿಯನ್
d) ಪಾಕಿಸ್ತಾನ್, ರಷ್ಯ, ಗ್ರೀಸ್

50. ಬಟ್ಟೆಯ ಮೇಲಿನ ಮುದ್ರಣ ಕಲೆಗೆ ಮೂಲ ನೆಲೆಯಾದ ದೇಶ _____
a) ಅಮೇರಿಕಾ b) ಬ್ರಿಟನ್ c) ಜರ್ಮನ್ d) ಭಾರತ

* * * * *

CBCS SCHEME

21KSK37

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

Question Paper Version : C

Third Semester B.Arch/B.Plan Degree Examination, Dec.2025/Jan.2026

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

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.

---

1. ಭಾರತದಲ್ಲಿ ಬೇರೆ ಬೇರೆ ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಸುಮಾರು ____ ಗಿಡಗಳಿವೆ.
   a) 300 b) 500 c) 200 d) 100

2. ಸಿವಿಲ್ ಸರ್ವಿಸ್ ರೂಲ್ಸ (Civil Service Rules) ಎಂದರೆ.
   a) ಸಿವಿಲ್ ಕಾಮಗಾರಿ b) ನಾಗರಿಕ ಸೇವಾ ನಿಯಮ
   c) ನಾಗರೀಕ ನೀತಿ ಸಂಹಿತೆ d) ರಹಸ್ಯ ದಾಖಲೆ

3. 'ಯುಗಾದಿ' ಕತೆಯಲ್ಲಿ ಬದಲಾದ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳಿಂದ ಒದ್ದಾಡುತ್ತಿರುವ ಹಿರಿಯ ಜೀವ ____
   a) ಗೋಪಣ್ಣ ಮಾಸ್ತರ್ b) ವಸುದೇಂದ್ರ c) ವೆಂಕಣ್ಣ d) ಪ್ರಹ್ಲಾದ

4. ಗೋಪಣ್ಣ ಮಾಸ್ತರರ ಆತ್ಮೀಯ ಗೆಳೆಯ
   a) ಕಾಸೀಂ ಸಾಹೇಬರು b) ನರಸಿಂಹ ಮೂರ್ತಿ c) ಅಂಬಾನಿ d) ಕಂಬಾರರು

5. 'ಯುಗಾದಿ' ಕತೆಯನ್ನು ಬರೆದವರು.
   a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ b) ಸಿದ್ದಲಿಂಗಯ್ಯ c) ವಸುದೇಂದ್ರ d) ಸುದರ್ಶನ ದೇಸಾಯಿ

6. "ಗಿಡ್ಡ ಪುಣಾಣಿ ಮಕ್ಕಳರಾಣಿ" ಅಂತ ಗೋಪಣ್ಣ ಮಾಸ್ತರು ಯಾರನ್ನು ಕರೆಯುತ್ತಿದ್ದರು.
a) ರೇಖಾ b) ಚಾಂದಿನಿ c) ಅಕ್ಕಸಾಲಿಗರ ಗಂಗಣ್ಣನ ಮಗಳು ರಾಧ d) ರುಕ್ಮಿಣಿ

7. ಜಾನಪದ ಅಕಾಡೆಮಿಯ ಅಧ್ಯಕ್ಷರಾಗಿದ್ದವರು?
a) ಡಾ.ಹಿ.ಚಿ ಬೋರಲಿಂಗಯ್ಯ b) ಶ್ರೀ. ಎಸ್. ಕೆ. ಕರೀಂಖಾನ್
c) ಕರೀಗೌಡ ಬೀಚನ ಹಳ್ಳಿ d) ಡಾ.ಎಲ್. ತಿಮ್ಮೇಶ್

8. 'ಹಾಡಹಳ್ಳಿಗೆ' ಹಿಂದೆ ಯಾವ ಹೆಸರಿತ್ತು?
a) ಸಂಗೀತಪುರ b) ಮಲೆನಾಡು c) ನಾಗವಳ್ಳಿ d) ಜೈನಪುರ

9. ಕುಣಬಿ ಜನಾಂಗದವರು ಮೂಲತಃ ಯಾವ ರಾಜ್ಯದ ಹಿನ್ನಲೆ ಹೊಂದಿದ್ದಾರೆ.
a) ಕರ್ನಾಟಕ b) ಆಂಧ್ರ c) ತಮಿಳುನಾಡು d) ಗೋವಾ

10. ಹೋಳಿ, ಸಿಗ್ಮಾನರ್ತನ, ಕೋಲಪದಗಮಟೆ ಪದಗಳ ರಸಪೌತಣ ಇವು ಕುಣಿಬಿಯರ _____
a) ಮಾತುಗಳು b) ಕಾಡುಗಳು c) ಆಭರಣಗಳು d) ನೃತ್ಯಗಳು

11. ಕಬ್ಬಿಗರ ಕಾವ್ಯ ಕೃತಿಯ ಕರ್ತೃ ಯಾರು?
a) ಕುವೆಂಪು b) ಬೇಂದ್ರೆ c) ಅಂಡಯ್ಯ ಕವಿ d) ಶ್ರೀ ಕುಮಾರವ್ಯಾಸ

12. ಬಾಗದ ಭೋಗದಕ್ಕರದ ಗೇಯದ? ಎನ್ನುತ್ತಾ ಜೀವನ ರಸಿಕತೆಯ ಆದರ್ಶವನ್ನು ಸಾರಿದ ಕವಿ ಯಾರು?
a) ಆದಿಕವಿ ಪಂಪ b) ಕಾಯಕ ತತ್ವ ಬಸವಣ್ಣ c) ಶ್ರೀಕುಮಾರವ್ಯಾಸ d) ರನ್ನ

13. ತನ್ನ ಒಡೆಯನೊಡನೆ ತಾನೂ ಸಾಯುವೆನೆಂದು ಪ್ರಮಾಣ ಮಾಡಿ ಆತ್ಮಹತ್ಯ ಮಾಡಿಕೊಳ್ಳುವವರಿಗೆ ____ ಎನ್ನುತ್ತಾರೆ
a) ಸಿಡಿತಲೆ b) ವೇಳವಡಿಚ c) ಕೋಳ್ಗಂಟೆ d) ಮಾಸ್ತಿ

14. "ಕುರಿತೋದದೆಯಂ ಕಾವ್ಯ ಪ್ರಯೋಗ ಪರಿಣತಮತಿಗಳು ಈ ಸಾಲು ಯಾವ ಕಾವ್ಯದಲ್ಲಿ ಕಂಡು ಬರುತ್ತದೆ?
a) ವಿಕ್ರಮಾರ್ಜುನ ವಿಜಯ b) ಕಬ್ಬಿಗರ ಕಾವ್ಯ c) ವಡ್ಡಾರಾಧನೆ d) ಕವಿರಾಜ ಮಾರ್ಗ

15. ಸುಮಾರು 1800 ರಲ್ಲಿ ಬಳ್ಳಾರಿ ಜಿಲ್ಲೆಯ ಕಲೆಕ್ಟರ್ ಆಗಿದ್ದರು ಯಾರು?
a) ರಾ.ಹ ದೇಶಪಾಂಡೆ b) ಥಾಮಸ್ ಮೆನ್ರೊ c) ಶ್ರೀರಂಗರು d) ವಿಶ್ವೇಶ್ವರಯ್ಯ

16. ಕರ್ನಾಟಕ ಏಕೀಕರಣ ವಾದ ವರ್ಷ ಯಾವುದು?
a) 1947 b) 1955 c) 1956 d) 1973

17. ಬೀದರ್ ನಗರದಲ್ಲಿ ಕನ್ನಡ ಪ್ರಚಾರ ಮಾಡಲು ಪರಿಷತ್ತಿನ ಸಮಿತಿಯವರು ಪ್ರಯಾಣ ಮಾಡದ್ದು.

a) ಕತ್ತೆ b) ಆನೆ c) ಎತ್ತಿನ ಗಾಡಿ d) ಕುದುರೆ

18. ಕನ್ನಡ ಭಾಷೆಯನ್ನು ಸುಮಾರು ಎಷ್ಟು ದಶಲಕ್ಷ ಜನರು ಆಡುನುಡಿಯಾಗಿ ಬಳಸುತ್ತಾರೆ.

a) 50 ದಶಲಕ್ಷ b) 60 ದಶಲಕ್ಷ c) 80 ದಶಲಕ್ಷ d) 25 ದಶಲಕ್ಷ

19. ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಲಿಪಿಗಳ ರಾಣಿ ಎಂದು ಕರೆದವರು ಯಾರು?

a) ಲಲಿತಾನಾಯಕ್ b) ವಿನೋಬಾ ಭಾವೆ c) ಇಂದಿರಾ ಎಂ.ಕೆ d) ಕುವೆಂಪು

20. ಹುಲಿಗಂಜಿ ಹುತ್ತವ ಹೊಕ್ಕಡೆ ___ ತಿಂಬುದ ಮಾಬುದೇ?

a) ಕರ್ಮ b) ಹುಲಿ c) ಸರ್ಪ d) ಕಾಲ

21. ಕುಣಿಬಿಯವರ ಜಾನಪದ ಸೊಲ್ಲಿನ ಆರಂಭ

a) ಗುರವಂದನಾ

b) ಗಣೇಶ ಸ್ತುತಿ

c) ಸ್ವಾಮಿ ಶರಣು ದೇವಕೋ ಸ್ವಾಮಿ ಶರಣು ದೇವಕೋ

d) ಸರಸ್ವತಿನಮಸ್ತುಭ್ಯಂ ವರದೀ ಕಾಮರೂಪಿಣಿ

22. ನಾಗವಳ್ಳಿಯಲ್ಲಿ ಲೇಖಕರಿಗೆ ಮಾರ್ಗದರ್ಶಕರಾಗಿದ್ದರು

a) ದೇವರ ಕುಪ್ಪಯ್ಯ, ಗೊಂಡರ ಕರಿಯ b) ಶ್ರೀ. ಎಸ್.ಕೆ ಕರೀಂಖಾನ್

c) ಶ್ರೀನಿವಾಸಮೂರ್ತಿ d) 70 ವರ್ಷದ ಗಣೇಶ

23. ದುಡಿತದ ಆಯಾಸವನ್ನು ಮರೆ ಮಾಚಲು ಮೆಗಾನೆಯವರ ನಾದ

a) ಕಹಳೆ b) ತಾಳ ಮತ್ತು ಮದ್ದಳೆ c) ಪಿಟೀಲು d) ಗಿಟಾರ್

24. ಮೆಗಾನೆ ಕುಣಬಿಯರ ಜನಸಂಖ್ಯೆ ಸರಿ ಸುಮಾರು

a) 150 b)160 c) 170 d) 180

25. ಕುಣಬಿಯರ ಸಂಭ್ರಮದ ಹಬ್ಬದ ನರ್ತನ

a) ಜನಪದ b) ಹೋಳಿಸಿಗ್ಮಾ c) ಯಕ್ಷಗಾನ d) ಲಂಬಾಣಿನೃತ್ಯ

26. ಕುವೆಂಪುರವರ ಯಾವ ಕೃತಿಗೆ 'ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿ' ಯನ್ನು ಪಡೆದಿದೆ.

a) ಸ್ಮಶಾನ ಕುರುಕ್ಷೇತ್ರ b) ಶ್ರೀರಾಮಾಯಣ ದರ್ಶನಂ

c) ಮಲೆಗಳಲ್ಲಿ ಮದುಮಗಳು d) ಕಾನೂರು ಹೆಗ್ಗಡತಿ

27. ರಾಷ್ಟ್ರಕವಿ ಕುವೆಂಪು ವಿರಚಿತ ನಾಡಗೀತೆ
    a) ಜಯ ಭಾರತ ಜನನಿಯ ತನುಜಾತೆ
    b) ಜೋಗದ ಸಿರಿ ಬೆಳಕಿನಲ್ಲಿ
    c) ಏರುತಿಹದು ಹಾರುತಿಹುದು ನೋಡು ನಮ್ಮ ಬಾವುಟ
    d) ಜನಗಣಮನ

28. 'ಕಾಂಕಾರ' - ಎಂಬುದಕ್ಕೆ ಸಮಾನಾರ್ಥಕ ಪದಗಳನ್ನು ಬರೆಯಿರಿ
    a) ಅಡವಿ, ಅರಣ್ಯ, ಕಠಿಣವಾದ ದಾರಿ
    b) ಕಾಡು, ಬೆಟ್ಟಗಿಡ
    c) ವರಾಹ, ದೈವ
    d) ಅರಣ್ಯಭೂಮಿ

29. 'ಮನೆಯಿಂದ' ಇದು ಯಾವ ವಿಭಕ್ತಿ
    a) ಪ್ರಥಮ b) ದ್ವಿತೀಯ c) ತೃತೀಯ d) ಪಂಚಮಿ

30. ನಾನು ಚಿಕನ್ ಬಿರಯಾನಿ ಮಾಡಿದ್ರೆ ನಿಮಗೆ ಬೇಕಾಗಲ್ಲ ಅಲ್ಲಾ? ಎಂದದ್ದು
    a) ರುಕ್ಮಿಣಿಯಮ್ಮ b) ನಿರ್ಮಳಾ c) ರೇಖಾ d) ಪ್ರಹ್ಲಾದ

31. ಯಾರ ಎಲುಬನ್ನು ಕಾಂಚಾಣ ಕಿರುಗಜ್ಜೆಯಾಗಿ ಮಾಡಿಕೊಂಡಿದೆ?
    a) ಮಕ್ಕಳ b) ಮುದುಕರು c) ಹೆಂಗಸರು d) ಬಾಣಂತಿ

32. ಕುರುಡು ಕಾಂಚಾಣಾದ ಕುಣಿತ ಮಾಮೂಲು ಕುಣಿತವಲ್ಲ ಅದು ______
    a) ಶ್ರಾಸ್ತ್ರೀಯ b) ಸಕೃತಿ c) ಹವ್ಯಾಸಿ d) ವಿಕೃತಿಯ ಮೊತ್ತ

33. 'ದ್ರವ್ಯ' ಎಂದರೆ?
    a) ಹಣ/ಸಂಪತ್ತು b) ಶೂದ್ರ c) ಅರಿವು d) ನಡೆನುಡಿ

34. ಸಂಸ್ಕೃತಿಯ ಹೆಸರಿಂದ ಶ್ರೀಮಂತರೊಡ್ಡುವಾ ಬಲೆ ನಿಮಗೆ______
    a) ವರದಾನ b) ಮೃತ್ಯು c) ಹಾಲಿನ ಕಡಲು d) ಪಂಚಾಮೃತ

35. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಯಾವ ಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ ಜೀವಂತರಾಗಿದ್ದಾರೆ
    a) ಮಂಡ್ಯ b) ಹಾಸನ c) ದಕ್ಷಿಣ ಕನ್ನಡ d) ಕೋಲಾರ

36. ಭದ್ರಾವತಿ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆಯ ಮೇಲ್ವಿಚಾರಕರಾಗಿ ಕೆಲಸ ನಿರ್ವಹಿಸುತ್ತಿದ್ದ ಅಮೇರಿಕಾದ ಅಧಿಕಾರಿಯ ಹೆಸರು.

a) ಬ್ಲಾಸ್ಟೆ ಫರ್ನೇಸಿನ b) ರೆಸಲ್ ಜಾನ್ ಬ್ರಾನ್

c) ಬ್ರಿಯಾನ್ ಹೀತ್ d) ಗ್ಲೋರಿಯಾ ಬರ್ಬೆನಾ

37. ಮಂಡ್ಯ ಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ, ಅಲ್ಲಿಯ ಜನರ ಅಭ್ಯುದಯದಲ್ಲಿ ಜೀವಂತರಾಗಿರುವವರು ಯಾರು?

a) ನಾಲ್ವಡಿ ಕೃಷ್ಣರಾಜ ಒಡೆಯರ್ b) ದೇವರಾಜ್ ಅರಸ್

c) ವಿಶ್ವೇಶ್ವರಯ್ಯ d) ಅಂಬೇಡ್ಕರ್

38. ಕ್ರಿ.ಪೂ ___ ವರ್ಷಗಳಿಂದಲೂ ಭಾರತೀಯ ಕರಕುಶಲಕಲೆಗಳಿಗೆ ಅಪಾರ ಬೇಡಿಕೆ ಇದೆ.

a) 1500 b) 3000 c) 2500 d) 2000

39. ಭಾರತದಲ್ಲಿ ತಯಾರಾದ ಬಟ್ಟೆಗಳಿಗೆ ಯಾವ ಯಾವ ದೇಶಗಳಲ್ಲಿ ಅಪಾರ ಬೇಡಿಕೆ ಇತ್ತು.

a) ಗ್ರೀಸ್, ಏಷಿಯಾ ಮೈನರ್, ಅರೇಬಿಯಾ ಹಾಗು ಮೆಡಿಟರೇನಿಯನ್

b) ಅಮೇರಿಕಾ, ಜರ್ಮನ್, ಅರೇಬಿಯಾ

c) ಬ್ರಿಟನ್, ಲಂಡನ್, ಮೆಡಿಟರೇನಿಯನ್

d) ಪಾಕಿಸ್ತಾನ್, ರಷ್ಯ, ಗ್ರೀಸ್

40. ಬಟ್ಟೆಯ ಮೇಲಿನ ಮುದ್ರಣ ಕಲೆಗೆ ಮೂಲ ನೆಲೆಯಾದ ದೇಶ ______

a) ಅಮೇರಿಕಾ b) ಬ್ರಿಟನ್ c) ಜರ್ಮನ್ d) ಭಾರತ

41. ಅಲ್ಲಮ ಪ್ರಭುವಿನ ಅಂಕಿತನಾಮ

a) ಗುಹೇಶ್ವರ b) ಕೂಡಲಸಂಗಮದೇವ c) ರಾಮನಾಥ d) ಸೋಮನಾಥ

42 'ಕರಿ' ಪದದ ಅರ್ಥ

a) ಆನೆ b) ತುರಗ c) ಹಯ d) ಕಲಿ

43. ಪುರಂದರ ದಾಸರ ಜನ್ಮಸ್ಥಳ

a) ಕಾಗಿನೆಲೆ b) ಪುರಂದರಗಡ c) ಕೋಳಿವಾಡ d) ಶಿಕಾರಿಪುರ

44. ಕೀರ್ತನೆಗಳ ಗಾಡನಂಬಿಕೆ ಏನು?

a) ವಾಯು ಜೀವೋತ್ತಮ b) ಹರ ವೈಷ್ಣವೋತ್ತಮ

c) ಮನೆಯೇ ಮಂತ್ರಾಲಯ d) ಹರಿಯೇ ಸರ್ವೋತ್ತಮ

45. ಕರದಲ್ಲಿ ಜಪಮಾಲೆ ಮಣಿಗಳನ್ನು ಹಿಡಿದ್ದಿದ್ದರು ಬಾಯಲ್ಲಿ ಆಡುವುದು ಏನು?
   a) ಮನನಿಂದನೆ   b) ಭಾವನಾತ್ಮಕ ನಿಂದನೆ
   c) ಪರನಿಂದನೆ   d) ಆತ್ಮನಿಂದನೆ

46. ಸಾಬಾಣ ಪದದ ಅರ್ಥವೇನು?
   a) ಕೊರಳು   b) ಮೂಳೆ   c) ಮಾಲೆ   d) ಸಾಬುನು

47. ಎಂತಹ ಅವಿಗೆಯನ್ನು ಮುಚ್ಚಬೇಕು.
   a) ಭಕ್ತಿ ಎಂಬ ಅವಿಗೆ   b) ಆಚಾರ ಎಂಬ ಅವಿಗೆ   c) ಗುಣ   d) ಧ್ಯಾನ

48. ಮೂರು ಕಾಸಿಗೊಂದು ಕುಡುಕಿ ಮಾರಿ _____ ಕಾಸಿಗೊಂದು ಗಡಿಗೆಯ ಮಾರಿ
   a) ಹತ್ತು   b) ಐದು   c) ಇಪ್ಪತ್ತು   d) ಆರು

49. ಬೆಲ್ಲ ಸಕ್ಕರೆಯಾಗು _____
   a) ಶ್ರೀಮಂತರಿಗೆ   b) ಮದ್ಯಮವರ್ಗದವರಿಗೆ   c) ಬಡವರಿಗೆ   d) ದೀನ ದುರ್ಬಲರಿಗೆ

50. ಡಿ.ವಿ.ಜಿ ಯವರ ಜನಪ್ರಿಯ ಕೃತಿ
   a) ಉಮರನ ಬಸಗೆ   b) ನಿವೇದನೆ   c) ಮಂಕುತಿಮ್ಮನ ಕಗ್ಗ   d) ಕುಸುಮಾಂಜಲಿ

* * * * *

CBCS SCHEME

21KSK37

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

Question Paper Version : D

Third Semester B.Arch/B.Plan Degree Examination, Dec.2025/Jan.2026

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - Samskruthika Kannada

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.

---

1. ಯಾರ ಎಲುಬನ್ನು ಕಾಂಚಾಣ ಕಿರುಗಜ್ಜೆಯಾಗಿ ಮಾಡಿಕೊಂಡಿದೆ?
   a) ಮಕ್ಕಳ b) ಮುದುಕರು c) ಹೆಂಗಸರು d) ಬಾಣಂತಿ

2. ಕುರುಡು ಕಾಂಚಾಣಾದ ಕುಣಿತ ಮಾಮೂಲು ಕುಣಿತವಲ್ಲ ಅದು______
   a) ಶ್ರಾಸ್ತ್ರೀಯ b) ಸಕೃತಿ c) ಹವ್ಯಾಸಿ d) ವಿಕೃತಿಯ ಮೊತ್ತ

3. 'ದ್ರವ್ಯ' ಎಂದರೆ?
   a) ಹಣ/ಸಂಪತ್ತು b) ಶೂದ್ರ c) ಅರಿವು d) ನಡೆನುಡಿ

4. ಸಂಸ್ಕೃತಿಯ ಹೆಸರಿಂದ ಶ್ರೀಮಂತರೊಡ್ಡುವಾ ಬಲೆ ನಿಮಗೆ______
   a) ವರದಾನ b) ಮೃತ್ಯು c) ಹಾಲಿನ ಕಡಲು d) ಪಂಚಾಮೃತ

5. ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು ಯಾವ ಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ ಜೀವಂತರಾಗಿದ್ದಾರೆ
   a) ಮಂಡ್ಯ b) ಹಾಸನ c) ದಕ್ಷಿಣ ಕನ್ನಡ d) ಕೋಲಾರ

6. ಭದ್ರಾವತಿ ಕಬ್ಬಿಣ ಮತ್ತು ಉಕ್ಕಿನ ಕಾರ್ಖಾನೆಯ ಮೇಲ್ವಿಚಾರಕರಾಗಿ ಕೆಲಸ ನಿರ್ವಹಿಸುತ್ತಿದ್ದ ಅಮೇರಿಕಾದ ಅಧಿಕಾರಿಯ ಹೆಸರು.

a) ಬ್ಲಾಸ್ಟೆ ಫೆರ್ನೇಸಿನ b) ರೆಸಲ್ ಜಾನ್ ಚ್ಯಾನ್

c) ಬ್ರಿಯಾನ್ ಹೀತ್ d) ಗ್ಲೋರಿಯಾ ಬರ್ಬೆನಾ

7. ಮಂಡ್ಯ ಜಿಲ್ಲೆಯ ಸೌಂದರ್ಯದಲ್ಲಿ, ಅಲ್ಲಿಯ ಜನರ ಅಭ್ಯುದಯದಲ್ಲಿ ಜೀವಂತರಾಗಿರುವವರು ಯಾರು?

a) ನಾಲ್ವಡಿ ಕೃಷ್ಣರಾಜ ಒಡೆಯರ್ b) ದೇವರಾಜ್ ಅರಸ್

c) ವಿಶ್ವೇಶ್ವರಯ್ಯ d) ಅಂಬೇಡ್ಕರ್

8. ಕ್ರಿ.ಪೂ ___ ವರ್ಷಗಳಿಂದಲೂ ಭಾರತೀಯ ಕರಕುಶಲಕಲೆಗಳಿಗೆ ಅಪಾರ ಬೇಡಿಕೆ ಇದೆ.

a) 1500 b) 3000 c) 2500 d) 2000

9. ಭಾರತದಲ್ಲಿ ತಯಾರಾದ ಬಟ್ಟೆಗಳಿಗೆ ಯಾವ ಯಾವ ದೇಶಗಳಲ್ಲಿ ಅಪಾರ ಬೇಡಿಕೆ ಇತ್ತು.

a) ಗ್ರೀಸ್, ಏಷಿಯಾ ಮೈನರ್, ಅರೇಬಿಯಾ ಹಾಗು ಮೆಡಿಟರೇನಿಯನ್

b) ಅಮೇರಿಕಾ, ಜರ್ಮನ್, ಅರೇಬಿಯಾ

c) ಬ್ರಿಟನ್, ಲಂಡನ್, ಮೆಡಿಟರೇನಿಯನ್

d) ಪಾಕಿಸ್ತಾನ್, ರಷ್ಯ, ಗ್ರೀಸ್

10. ಬಟ್ಟೆಯ ಮೇಲಿನ ಮುದ್ರಣ ಕಲೆಗೆ ಮೂಲ ನೆಲೆಯಾದ ದೇಶ _____

a) ಅಮೇರಿಕಾ b) ಬ್ರಿಟನ್ c) ಜರ್ಮನ್ d) ಭಾರತ

11. ಕುಣಿಬಿಯವರ ಜಾನಪದ ಸೊಲ್ಲಿನ ಆರಂಭ

a) ಗುರವಂದನಾ

b) ಗಣೇಶ ಸ್ತುತಿ

c) ಸ್ವಾಮಿ ಶರಣು ದೇವಕೋ ಸ್ವಾಮಿ ಶರಣು ದೇವಕೋ

d) ಸರಸ್ವತಿನಮಸ್ತುಭ್ಯಂ ವರದೀ ಕಾಮರೂಪಿಣಿ

12. ನಾಗವಳ್ಳಿಯಲ್ಲಿ ಲೇಖಕರಿಗೆ ಮಾರ್ಗದರ್ಶಕರಾಗಿದ್ದರು

a) ದೇವರ ಕುಪ್ಪಯ್ಯ, ಗೊಂಡರ ಕರಿಯ b) ಶ್ರೀ. ಎಸ್.ಕೆ ಕರೀಂಖಾನ್

c) ಶ್ರೀನಿವಾಸಮೂರ್ತಿ d) 70 ವರ್ಷದ ಗಣೇಶ

13. ದುಡಿತದ ಆಯಾಸವನ್ನು ಮರೆ ಮಾಚಲು ಮೆಗಾನೆಯವರ ನಾದ

a) ಕಹಳೆ b) ತಾಳ ಮತ್ತು ಮದ್ದಳೆ c) ಪಿಟೀಲು d) ಗಿಟಾರ್

14. ಮೆಗಾನೆ ಕುಣಬಿಯರ ಜನಸಂಖ್ಯೆ ಸರಿ ಸುಮಾರು
a) 150 b)160 c) 170 d) 180

15. ಕುಣಬಿಯರ ಸಂಭ್ರಮದ ಹಬ್ಬದ ನರ್ತನ
a) ಜನಪದ b) ಹೋಳಿಸಿಗ್ಮಾ c) ಯಕ್ಷಗಾನ d) ಲಂಬಾಣಿನೃತ್ಯ

16. ಕುವೆಂಪುರವರ ಯಾವ ಕೃತಿಗೆ 'ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿ' ಯನ್ನು ಪಡೆದಿದೆ.
a) ಸ್ಮಶಾನ ಕುರಕ್ಷೇತ್ರ b) ಶ್ರೀರಾಮಾಯಣ ದರ್ಶನಂ
c) ಮಲೆಗಳಲ್ಲಿ ಮದುಮಗಳು d) ಕಾನೂರು ಹೆಗ್ಗಡತಿ

17. ರಾಷ್ಟ್ರಕವಿ ಕುವೆಂಪು ವಿರಚಿತ ನಾಡಗೀತೆ
a) ಜಯ ಭಾರತ ಜನನಿಯ ತನುಜಾತೆ
b) ಜೋಗದ ಸಿರಿ ಬೆಳಕಿನಲ್ಲಿ
c) ಏರುತಿಹದು ಹಾರುತಿಹುದು ನೋಡು ನಮ್ಮ ಬಾವುಟ
d) ಜನಗಣಮನ

18. 'ಕಾಂಕಾರ' - ಎಂಬುದಕ್ಕೆ ಸಮಾನಾರ್ಥಕ ಪದಗಳನ್ನು ಬರೆಯಿರಿ
a) ಅಡವಿ, ಅರಣ್ಯ, ಕಠಿಣವಾದ ದಾರಿ
b) ಕಾಡು, ಬೆಟ್ಟಗಿಡ
c) ವರಾಹ, ದೈವ
d) ಅರಣ್ಯಭೂಮಿ

19. 'ಮನೆಯಿಂದ' ಇದು ಯಾವ ವಿಭಕ್ತಿ
a) ಪ್ರಥಮ b) ದ್ವಿತೀಯ c) ತೃತೀಯ d) ಪಂಚಮಿ

20. ನಾನು ಚಿಕನ್ ಬಿರಯಾನಿ ಮಾಡಿದ್ರೆ ನಿಮಗೆ ಬೇಕಾಗಲ್ಲ ಅಲ್ಲಾ? ಎಂದದ್ದು
a) ರುಕ್ಮೀಣಿಯಮ್ಮ b) ನಿರ್ಮಳಾ c) ರೇಖಾ d) ಪ್ರಹ್ಲಾದ

21. ಭಾರತದಲ್ಲಿ ಬೇರೆ ಬೇರೆ ಬಣ್ಣಗಳನ್ನು ನೀಡುವ ಸುಮಾರು ____ ಗಿಡಗಳಿವೆ.
a) 300 b) 500 c) 200 d) 100

22. ಸಿವಿಲ್ ಸರ್ವಿಸ್ ರೂಲ್ಸ (Civil Service Rules) ಎಂದರೆ.
a) ಸಿವಿಲ್ ಕಾಮಗಾರಿ b) ನಾಗರಿಕ ಸೇವಾ ನಿಯಮ
c) ನಾಗರೀಕ ನೀತಿ ಸಂಹಿತೆ d) ರಹಸ್ಯ ದಾಖಲೆ

23. 'ಯುಗಾದಿ' ಕತೆಯಲ್ಲಿ ಬದಲಾದ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳಿಂದ ಒದ್ದಾಡುತ್ತಿರುವ ಹಿರಿಯ ಜೀವ ____
a) ಗೋಪಣ್ಣ ಮಾಸ್ತರ್ b) ವಸುದೇಂದ್‌ರ c) ವೆಂಕಣ್ಣ d) ಪ್ರಹ್ಲಾದ

24. ಗೋಪಣ್ಣ ಮಾಸ್ತರರ ಆತ್ಮೀಯ ಗೆಳೆಯ
a) ಕಾಸೀಂ ಸಾಹೇಬರು b) ನರಸಿಂಹ ಮೂರ್ತಿ c) ಅಂಬಾನಿ d) ಕಂಬಾರರು

25. 'ಯುಗಾದಿ' ಕತೆಯನ್ನು ಬರೆದವರು.
a) ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ b) ಸಿದ್ದಲಿಂಗಯ್ಯ c) ವಸುದೇಂದ್ರ d) ಸುದರ್ಶನ ದೇಸಾಯಿ

26. "ಗಿಡ್ಡ ಪುಣಾಣಿ ಮಕ್ಕಳರಾಣಿ" ಅಂತ ಗೋಪಣ್ಣ ಮಾಸ್ತರು ಯಾರನ್ನು ಕರೆಯುತ್ತಿದ್ದರು.
a) ರೇಖಾ b) ಚಾಂದಿನಿ c) ಅಕ್ಕಸಾಲಿಗರ ಗಂಗಣ್ಣನ ಮಗಳು ರಾಧ d) ರುಕ್ಮೀಣಿ

27. ಜಾನಪದ ಅಕಾಡೆಮಿಯ ಅಧ್ಯಕ್ಷರಾಗಿದ್ದವರು?
a) ಡಾ.ಹಿ.ಚಿ ಬೋರಲಿಂಗಯ್ಯ b) ಶ್ರೀ. ಎಸ್. ಕೆ. ಕರೀಂಖಾನ್
c) ಕರೀಗೌಡ ಬೀಚನ ಹಳ್ಳಿ d) ಡಾ.ಎಲ್. ತಿಮ್ಮೇಶ್

28. 'ಹಾಡಹಳ್ಳಿಗೆ' ಹಿಂದೆ ಯಾವ ಹೆಸರಿತ್ತು?
a) ಸಂಗೀತಪುರ b) ಮಲೆನಾಡು c) ನಾಗವಳ್ಳಿ d) ಜೈನಪುರ

29. ಕುಣಬಿ ಜನಾಂಗದವರು ಮೂಲತ: ಯಾವ ರಾಜ್ಯದ ಹಿನ್ನಲೆ ಹೊಂದಿದ್ದಾರೆ.
a) ಕರ್ನಾಟಕ b) ಆಂದ್ರ c) ತಮಿಳುನಾಡು d) ಗೋವಾ

30. ಹೋಳಿ, ಸಿಗ್ಮಾನರ್ತನ, ಕೋಲಪದಗಮಟೆ ಪದಗಳ ರಸಔತಣ ಇವು ಕುಣಬಿಯರ _____
a) ಮಾತುಗಳು b) ಕಾಡುಗಳು c) ಆಭರಣಗಳು d) ನೃತ್ಯಗಳು

31. ಅಲ್ಲಮ ಪ್ರಭುವಿನ ಅಂಕಿತನಾಮ
a) ಗುಹೇಶ್ವರ b) ಕೂಡಲಸಂಗಮದೇವ c) ರಾಮನಾಥ d) ಸೋಮನಾಥ

32. 'ಕರಿ' ಪದದ ಅರ್ಥ
a) ಆನೆ b) ತುರಗ c) ಹಯ d) ಕಲಿ

33. ಪುರಂದರ ದಾಸರ ಜನ್ಮಸ್ಥಳ
a) ಕಾಗಿನೆಲೆ b) ಪುರಂದರಗಡ c) ಕೋಳಿವಾಡ d) ಶಿಕಾರಿಪುರ

34. ಕೀರ್ತನೆಗಳ ಗಾಡನಂಬಿಕೆ ಏನು?
a) ವಾಯು ಜೀವೊತ್ತಮ
b) ಹರ ವೈಷ್ಣವೊತ್ತಮ
c) ಮನೆಯೇ ಮಂತ್ರಾಲಯ
d) ಹರಿಯೇ ಸರ್ವೋತ್ತಮ

35. ಕರದಲ್ಲಿ ಜಪಮಾಲೆ ಮಣಿಗಳನ್ನು ಹಿಡಿದ್ದಿದ್ದರು ಬಾಯಲ್ಲಿ ಆಡುವುದು ಏನು?
a) ಮನನಿಂದನೆ
b) ಭಾವನಾತ್ಮಕ ನಿಂದನೆ
c) ಪರನಿಂದನೆ
d) ಆತ್ಮನಿಂದನೆ

36. ಸಾಬಾಣ ಪದದ ಅರ್ಥವೇನು?
a) ಕೊರಳು
b) ಮೂಳೆ
c) ಮಾಲೆ
d) ಸಾಬುನು

37. ಎಂತಹ ಅವಿಗೆಯನ್ನು ಮುಚ್ಚಬೇಕು.
a) ಭಕ್ತಿ ಎಂಬ ಅವಿಗೆ
b) ಆಚಾರ ಎಂಬ ಅವಿಗೆ
c) ಗುಣ
d) ಧ್ಯಾನ

38. ಮೂರು ಕಾಸಿಗೊಂದು ಕುಡುಕಿ ಮಾರಿ _____ ಕಾಸಿಗೊಂದು ಗಡಿಗೆಯ ಮಾರಿ
a) ಹತ್ತು
b) ಐದು
c) ಇಪ್ಪತ್ತು
d) ಆರು

39. ಬೆಲ್ಲ ಸಕ್ಕರೆಯಾಗು _____
a) ಶ್ರೀಮಂತರಿಗೆ
b) ಮದ್ಯಮವರ್ಗದವರಿಗೆ
c) ಬಡವರಿಗೆ
d) ದೀನ ದುರ್ಬಲರಿಗೆ

40. ಡಿ.ವಿ.ಜಿ ಯವರ ಜನಪ್ರಿಯ ಕೃತಿ
a) ಉಮರನ ಬಸಗೆ
b) ನಿವೇದನೆ
c) ಮಂಕುತಿಮ್ಮನ ಕಗ್ಗ
d) ಕುಸುಮಾಂಜಲಿ

41. ಕಬ್ಬಿಗರ ಕಾವ್ಯ ಕೃತಿಯ ಕರ್ತೃ ಯಾರು?
a) ಕುವೆಂಪು
b) ಬೇಂದ್ರೆ
c) ಅಂಡಯ್ಯ ಕವಿ
d) ಶ್ರೀ ಕುಮಾರವ್ಯಾಸ

42 ಬಾಗದ ಭೋಗದಕ್ಕರದ ಗೇಯದ? ಎನ್ನುತ್ತಾ ಜೀವನ ರಸಿಕತೆಯ ಆದರ್ಶವನ್ನು ಸಾರಿದ ಕವಿ ಯಾರು?
a) ಆದಿಕವಿ ಪಂಪ
b) ಕಾಯಕ ತತ್ವ ಬಸವಣ್ಣ
c) ಶ್ರೀಕುಮಾರವ್ಯಾಸ
d) ರನ್ನ

43. ತನ್ನ ಒಡೆಯನೊಡನೆ ತಾನೂ ಸಾಯುವೆನೆಂದು ಪ್ರಮಾಣ ಮಾಡಿ ಆತ್ಮಹತ್ಯ ಮಾಡಿಕೊಳ್ಳುವವರಿಗೆ ____ ಎನ್ನುತ್ತಾರೆ
a) ಸಿಡಿತಲೆ
b) ವೇಳವಡಿಚ
c) ಕೋಳ್ಗಂಟೆ
d) ಮಾಸ್ತಿ

44. "ಕುರಿತೋದದೆಯಂ ಕಾವ್ಯ ಪ್ರಯೋಗ ಪರಿಣತಮತಿಗಳು ಈ ಸಾಲು ಯಾವ ಕಾವ್ಯದಲ್ಲಿ ಕಂಡು ಬರುತ್ತದೆ?
a) ವಿಕ್ರಮಾರ್ಜುನ ವಿಜಯ b) ಕಬ್ಬಿಗರ ಕಾವ್ಯ c) ವಡ್ಡಾರಾಧನೆ d) ಕವಿರಾಜ ಮಾರ್ಗ

45. ಸುಮಾರು 1800 ರಲ್ಲಿ ಬಳ್ಳಾರಿ ಜಿಲ್ಲೆಯ ಕಲೆಕ್ಟರ್ ಆಗಿದ್ದರು ಯಾರು?
a) ರಾ.ಹ ದೇಶಪಾಂಡೆ b) ಥಾಮಸ್ ಮೆನ್ರೊ c) ಶ್ರೀರಂಗರು d) ವಿಶ್ವೇಶ್ವರಯ್ಯ

46. ಕರ್ನಾಟಕ ಏಕೀಕರಣ ವಾದ ವರ್ಷ ಯಾವುದು?
a) 1947 b) 1955 c) 1956 d) 1973

47. ಬೀದರ್ ನಗರದಲ್ಲಿ ಕನ್ನಡ ಪ್ರಚಾರ ಮಾಡಲು ಪರಿಷತ್ತಿನ ಸಮಿತಿಯವರು ಪ್ರಯಾಣ ಮಾಡದ್ದು.
a) ಕತ್ತೆ b) ಆನೆ c) ಎತ್ತಿನ ಗಾಡಿ d) ಕುದುರೆ

48. ಕನ್ನಡ ಭಾಷೆಯನ್ನು ಸುಮಾರು ಎಷ್ಟು ದಶಲಕ್ಷ ಜನರು ಆಡುನುಡಿಯಾಗಿ ಬಳಸುತ್ತಾರೆ.
a) 50 ದಶಲಕ್ಷ b) 60 ದಶಲಕ್ಷ c) 80 ದಶಲಕ್ಷ d) 25 ದಶಲಕ್ಷ

49. ಕನ್ನಡ ಲಿಪಿಯನ್ನು ಲಿಪಿಗಳ ರಾಣಿ ಎಂದು ಕರೆದವರು ಯಾರು?
a) ಲಲಿತಾನಾಯಕ್ b) ವಿನೋಬಾ ಭಾವೆ c) ಇಂದಿರಾ ಎಂ.ಕೆ d) ಕುವೆಂಪು

50. ಹುಲಿಗಂಜಿ ಹುತ್ತವ ಹೊಕ್ಕಡೆ ___ ತಿಂಬುದ ಮಾಬುದೇ?
a) ಕರ್ಮ b) ಹುಲಿ c) ಸರ್ಪ d) ಕಾಲ

* * * * *

CBCS SCHEME

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

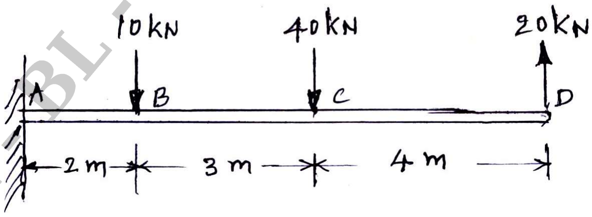
BCV301

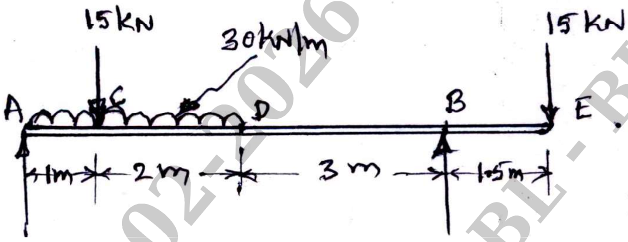
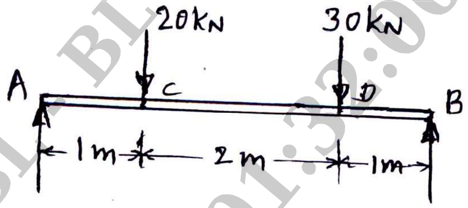
Third Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

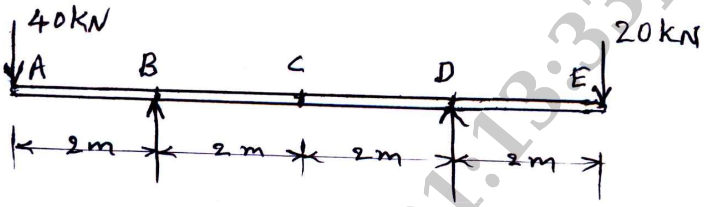
Strength of Materials

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.**	Draw Stress-Strain diagram for structural steel subjected to axial tensile force and explain the salient points.	**06**	**L2**	**CO1**
	b.	Define the following: i) Poisson's Ratio ii) Modulus of Rigidity iii) Modulus of Elasticity iv) Bulk Modulus	**04**	**L1**	**CO1**
	c.	Calculate the modulus of rigidity and bulk modulus of a cylindrical bar of diameter 25 mm and of length 1.2 m, if the longitudinal strain in the bar during a tensile test is four times the lateral strain. Also find the change in volume when the bar is subjected to a hydrostatic pressure of 120 N/mm^2 . Take $E = 1.2 \times 10^5$ N/mm^2.	**10**	**L3**	**CO1**
		OR			
Q.2	**a.**	State and explain Hook's Law.	**04**	**L2**	**CO1**
	b.	Derive an expression for relation between modulus of elasticity and modulus of rigidity.	**06**	**L3**	**CO1**
	c.	A weight of 390 kN is supported by a short column of 250 mm square in section. The column is reinforced with 8 steel bars of cross-sectional area 2500 mm^2. Find the stresses in steel and concrete if $E_{st} = 15\ E_{con}$. If stress in concrete must not exceed 4.5 N/mm^2, what area of steel is required in order that column may support a load of 480 kN?	**10**	**L3**	**CO1**
		Module – 2			
Q.3	**a.**	Define Shear Force and Bending Moment at a section and state relation between them.	**04**	**L1**	**CO2**
	b.	Draw SFD and BMD for a cantilever subjected UDL of W N/m over entire length. Length of cantilever is L m.	**06**	**L3**	**CO2**
	c.	Draw the shear force and bending moment diagrams for a cantilever subjected forces as shown in Fig.Q.3(c).  Fig.Q.3(c)	**10**	**L3**	**CO2**

		OR			
Q.4	**a.**	Define Point of Contraflexture and explain how to calculate point of contraflexure.	**04**	**L1**	**CO2**
	b.	Derive the relation between rate of loading, shear force and bending moment.	**06**	**L3**	**CO2**
	c.	Draw SFD and BMD for the beam loaded as shown in Fig.Q4(c). Also locate the point of contraflexure.  Fig.Q4(c)	**10**	**L3**	**CO2**
		Module – 3			
Q.5	**a.**	With usual notations, derive Bernoulli – Euler bending equation. Also mention the assumptions made in derivation of bending equation.	**08**	**L3**	**CO3**
	b.	A simply supported beam with 'T' section is subjected to the force as shown in Fig.Q5(b). Determine the shear stress distribution along depth of the section of beam subjected to maximum shear force.  Fig.Q5(b)	**12**	**L4**	**CO3**
		OR			
Q.6	**a.**	List the assumption made in the theory of torsion. Also derive the torsion equation $\frac{T}{J} = \frac{G\theta}{L} = \frac{\tau}{R}$	**10**	**L3**	**CO3**
	b.	A solid shaft is of 50 mm diameter. Determine the diameters of a hollow shaft such that its area of cross-section is same as that of solid shaft. the inner diameter of hollow shaft is 0.8 times outer diameter. Compare the torsional strengths and torsional stiffness of the hollow and solid shafts, the length , material being same in both cases.	**10**	**L4**	**CO3**
		Module – 4			
Q.7	**a.**	Derive deflection equation $EI\frac{d^2y}{dx^2} = M$	**06**	**L3**	**CO4**

Q.7	b.	Calculate slope at 'B' and deflection at 'C' for the overhanging beam shown in Fig.Q7(b). Take E = 200 GPa and I = 50×10^6 mm^4.  Fig.Q7(b)	14	L4	CO4
		OR			
Q.8	a.	Differentiate between Short and Long column and what are the limitations of Euler's theory.	06	L3	CO4
	b.	A 2 meters long column has a square cross-section of side 40mm. Taking the factor of safety as 4, determine the safe load for the end conditions, (i) both ends are hinged (ii) one end is fixed and other end is free (iii) Both ends are fixed (iv) One end is fixed and other end is hinged. Take E = 210GPa.	14	L4	CO4
		Module – 5			
Q.9	a.	Define Principal Stresses and Principal Planes.	04	L1	CO5
	b.	Derive expression for normal stress and tangential stress for a member subjected to uniaxial loading.	06	L3	CO5
	c.	A point in a strained member is subjected to biaxial stresses 85 MPa (tensile) and 60 MPa (comp). The point is also subjected to a shear stress 45 MPa such that shear force on vertical faces gives rise to clockwise couple. Determine : i) Stress acting on a plane whose normal is at an angle of 40° with reference to 85 MPa stress direction. ii) Magnitudes of Principal stresses and maximum and minimum shear stresses iii) Orientation of the Principal planes and maximum and minimum shear stress planes.	10	L4	CO5
		OR			
Q.10	a.	List the differences between thick and thin cylinders.	04	L1	CO5
	b.	Derive Lame's equation for the radial and hoop stress for thick cylinder subjected to internal and external fluid pressure.	08	L3	CO5
	c.	A cylindrical pressure vessel with inner and outer diameters 180 mm and 220 mm respectively is subjected to an internal pressure 10 MPa. Taking the circumferential stress at the inner wall as 25 MPa (tension). Determine (i) maximum value of external pressure that can be applied (ii) circumferential stress on the outer surface.	08	L4	CO5

* * * * *

CBCS SCHEME

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

BCV302

Third Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Engineering Survey

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 Surveying? List the different types of surveying.	8	L1	CO1
	b.	List the advantages and disadvantages of plane table surveying.	6	L1	CO1
	c.	Discuss on different types of tapes.	6	L2	CO1
		OR			
Q.2	**a.**	With the neat sketch, discuss the use of distance measuring wheel for interior and exterior of buildings.	8	L3	CO1
	b.	Differentiate between plane and geodetic surveying.	6	L2	CO1
	c.	What is compass surveying? List the limitations of it.	6	L1	CO1
		Module – 2			
Q.3	**a.**	Explain reiteration method of measuring horizontal angle with the neat tabular column.	8	L2	CO2
	b.	Define the following terms: datum, mean sea level, level line, bench mark.	6	L1	CO2
	c.	The following staff readings were taken with a level and 4 m staff on a continuously sloping ground: 0.850, 1.250, 2.500, 3.750, 0.890, 2.100, 3.125 and 3.900. The first reading is taken on a BM of RL 420.000 m. Using HI method, calculate RL of other points.	6	L3	CO2
		OR			
Q.4	**a.**	The following staff readings were taken with a leveling instrument, and the instrument is being shifted after fifth and eighth readings. The readings are : 2.350, 1.650, 0.850, 1.500, 0.500, 0.625, 1.900, 2.750, 3.500 and 3.950. The RL of first point is 625.000 m. Use rise and fall method to calculate RL of other points. Carry out Arithmetic check.	8	L3	CO2
	b.	Define the terms: transiting, swinging, line of sight, trunnion axis.	6	L2	CO2
	c.	With the neat sketch, explain the fundamental measurements of total station.	6	L2	CO2
		Module – 3			
Q.5	**a.**	Explain the characteristics of contours.	8	L2	CO3
	b.	Explain the procedure of coordinate measurements in total station.	6	L2	CO3
	c.	List the applications of coordinate survey in total station.	6	L1	CO3

		OR			
Q.6	**a.**	Discuss on profile and cross-sectioning with typical sketches.	**8**	**L2**	**CO3**
	b.	Define the following with typical sketches: contour internal, horizontal equivalent and ridge line.	**6**	**L1**	**CO3**
	c.	Explain : i) Importance of back sight data ii) Tools to plot in CAD in total station.	**6**	**L1**	**CO3**
		Module – 4			
Q.7	**a.**	A road embankment is 8 m wide and 200 m in length, at the formation level, with a side slope of 1.5:1. The embankment has a rising gradient of 1 in 100 m. The ground levels at every 50 m along the centre line are as follows: (see table below) The formation level of zero chainage is 166.0 m. Calculate the volume of earthwork by trapezoidal and prismoidal rule.	**10**	**L3**	**CO4**
	b.	Define: point of curve, midordinate and tangent length with a neat sketch.	**6**	**L1**	**CO4**
	c.	List the different types of vertical curves.	**4**	**L1**	**CO4**
		OR			
Q.8	**a.**	Two tangents intersect at a chainage of 1192.00 m, the deflection angle being 50°00′. Calculate the necessary data for setting out a curve of 300 m radius to connect the two tangents if it is intended to set out by Rankine's method. Take peg interval as 30 m.	**10**	**L3**	**CO4**
	b.	With the neat sketch, show the different parts of compound curve.	**6**	**L1**	**CO4**
	c.	How total station is useful in setting out work?	**4**	**L1**	**CO4**
		Module – 5			
Q.9	**a.**	Discuss the different types of GPS receivers and their applications.	**8**	**L2**	**CO5**
	b.	Explain how remote sensing is applied in civil and environmental engineering.	**6**	**L2**	**CO5**
	c.	What are different types of sensors used in drone surveying?	**6**	**L1**	**CO5**
		OR			
Q.10	**a.**	List and explain the main requirements for drone surveying.	**8**	**L1**	**CO5**
	b.	Describe the main components of GPS system.	**6**	**L2**	**CO5**
	c.	Different between two positioning methods in GPS.	**6**	**L1**	**CO5**

Table for Q.7 a:

Distance (m)	0	50	100	150	200
RL (m)	164.5	165.2	166.8	167	167.2

* * * * *

CBCS SCHEME

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

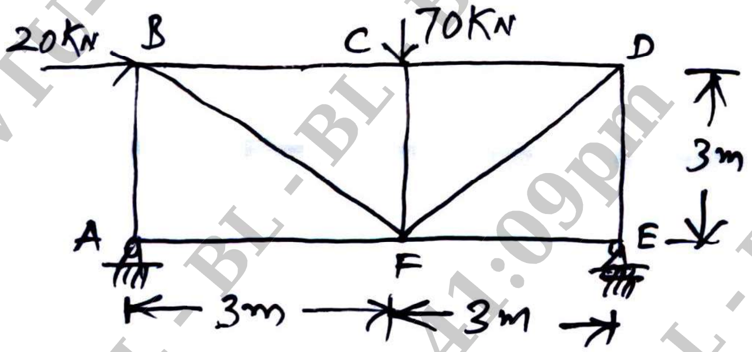
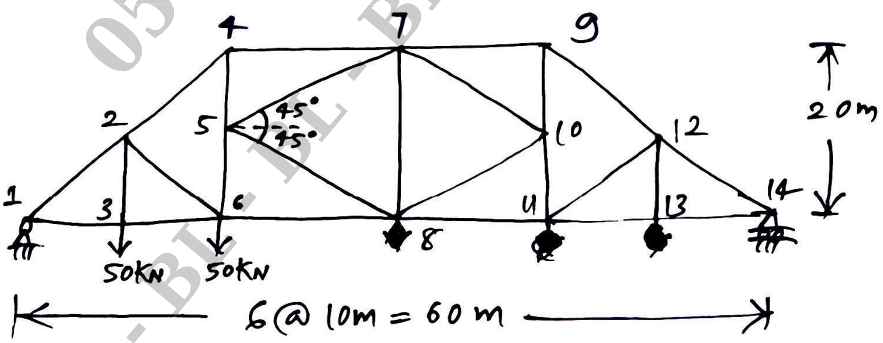
BCV401

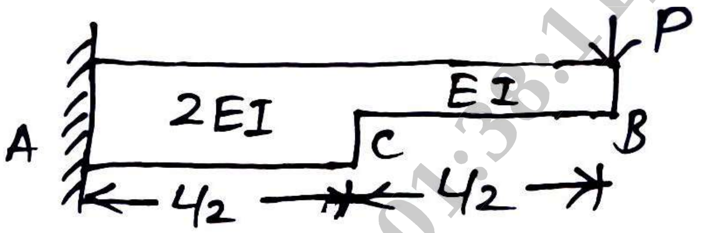
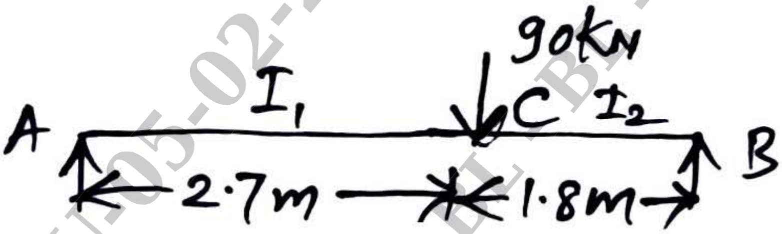
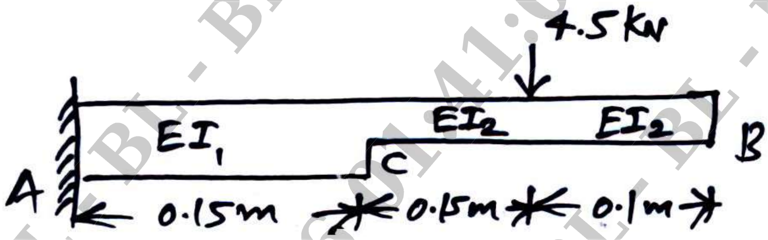
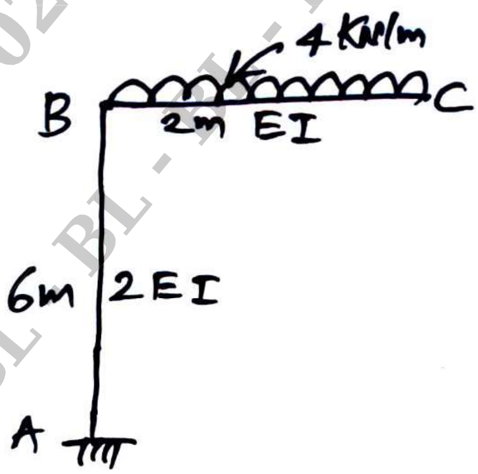
Fourth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

Analysis of Structures

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.

<table>
<tr><th colspan="3">Module – 1</th><th>M</th><th>L</th><th>C</th></tr>
<tr><td>Q.1</td><td>a.</td><td>Explain with examples :
i. Structural forms
ii. Degree of freedom.</td><td>5</td><td>L1</td><td>CO1</td></tr>
<tr><td></td><td>b.</td><td>Determine the forces in members of the truss as shown in Fig.Q1(b) by method of joints.
 
Fig.Q1(b)</td><td>15</td><td>L3</td><td>CO1</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td>Q.2</td><td>a.</td><td>Explain :
i. Conditions of equilibrium
ii. Compatibility conditions.</td><td>5</td><td>L1</td><td>CO1</td></tr>
<tr><td></td><td>b.</td><td>Compute the forces in members meeting at joint 5 of the truss as shown in Fig.2(b) by Method of sections.
 
Fig.Q2(b)</td><td>15</td><td>L3</td><td>CO1</td></tr>
</table>

		Module – 2			
Q.3	**a.**	Determine the slope and deflection at free end of the Cantilever beam as shown in Fig.Q3(a) by Moment Area method.  Fig.Q3(a)	10	L3	CO2
	b.	Determine the deflection under the load for the beam as shown in Fig.Q3(b) by Castigliano's Method. $EI_1 = 33600$ KN-m^2, $EI_2 = 25200$ KN-m^2.  Fig.Q3(b)	10	L3	CO2
		OR			
Q.4	**a.**	Determine the slope and deflection at free end of the cantilever beam as shown in Fig.Q4(a) by Moment Area Method $EI_1 = 140$ KN-m^2, $EI_2 = 28$ KN-m^2.  Fig.Q4(a)	10	L3	CO2
	b.	Determine the vertical deflection at free end of the frame as shown in Fig.Q4(b) by Castigliano's Method. $EI = 2050$ KN-m^2.  Fig.Q4(b)	10	L3	CO2

Module – 3

Q.5 **a.** The equation of three-hinged parabolic arch with origin x^2 at its left support is $y = x - \frac{x^2}{40}$. The span of the arch is 48m. Find the normal thrust and radial shear force at a section 6m form the left support, when the arch is carrying UDL of 20 KN/m over the left half of span. — 10 | L3 | CO3

b. A suspension cable 150 m span and 15 m central dip carries a load of 2 KN/m (two Kilo-Newton/meter). Calculate the max and minimum tension in the cable. Find the horizontal and vertical forces in each pier under the following conditions :

i. If the cable passes over a frictionless rollers on top of piers
ii. If the cable is firmly clamped to saddles carried on frictionless rollers on top of the piers.

In each case the back stay is inclined at 30° with horizontal. — 10 | L3 | CO3

OR

Q.6 **a.** Determine the reaction components at supports A and D and the internal forces just to the right of point C for a three-hinged arch as shown in Fig.Q6(a). — 10 | L3 | CO3

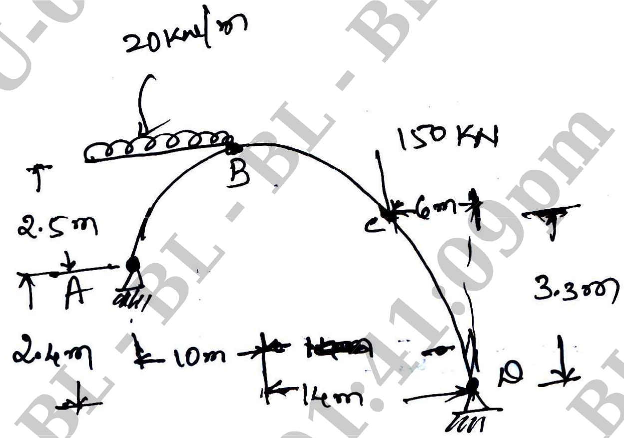


Fig.6(a)

b. A suspension bridge of 110 m span has two three hinged stiffening girders supported by two cables having a central dip of 12 m. The roadway has a width of 6m. The dead load on bridge is 5 KN/m^2 and the live load 8 KN/m^2 which acts on left half of the span. Determine the shear force and bending moment in the girder at 25 m from left end. Find also the maximum tension in the cable for this position of live load. — 10 | L3 | CO3

Module – 4

Q.7 A continuous beam is supported and loaded as shown in Fig.Q7. During loading support B sinks by 10 mm. Analyze the beam for support moments and reactions. E = 200,000 MPa and I = 100 × 10^6 mm^4 constant throughout, using slope–deflection method. — 20 | L4 | CO4

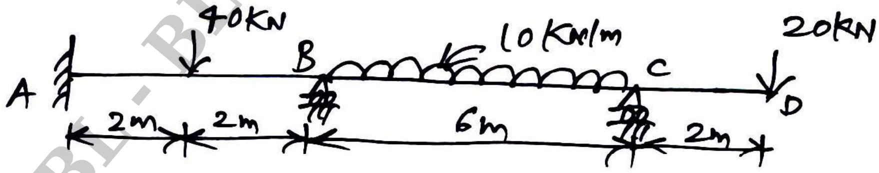


Fig.Q7

OR

Q.8		Determine the end moments of the members of the frame with lateral translation of joints as shown in Fig.8. The relative EI values for each member are indicated along the members, by slop–deflection method.	**20**	**L4**	**CO4**

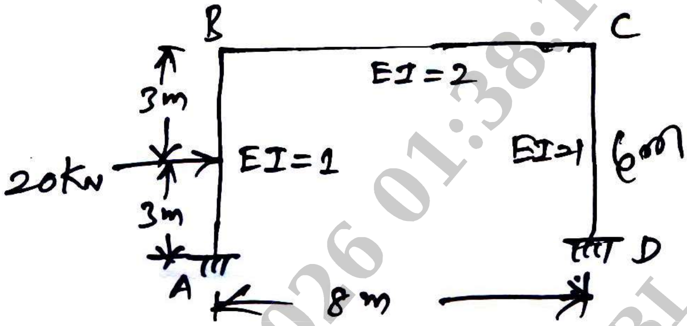


Fig.Q8

Module – 5

Q.9		Analyse the continuous beam as shown in Fig.Q9 by moment distribution method. EI is same throughout the span.	**20**	**L4**	**CO5**

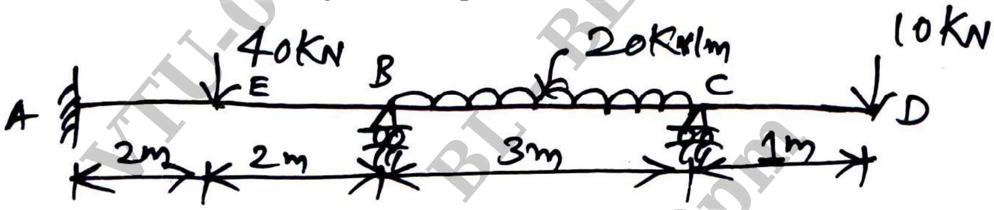


Fig.Q9

OR

Q.10		Determine the end moments of the members of the frame as shown in Fig.Q10 with lateral translation of joints by moment distribution method. EI is same for all the members. Draw the BMD.	**20**	**L4**	**CO5**

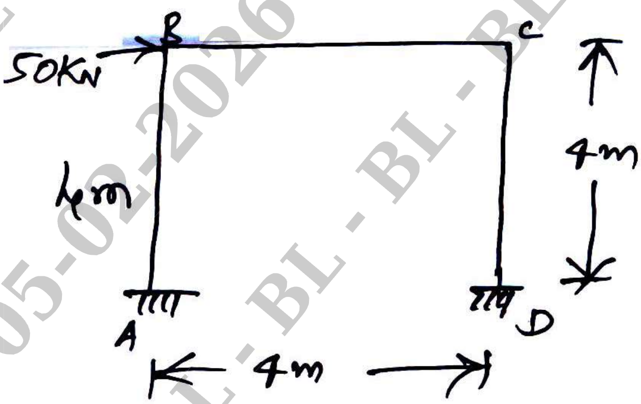


Fig.Q10

* * * * *

CBCS SCHEME

BCV456C

USN | | | | | | | | | |

Question Paper Version : A

Fourth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.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.

---

1. What is E – waste?
a) Agricultural waste b) Electronic waste c) Plastic waste d) Medical waste

2. Why is e – waste management important?
a) To increase GDP b) To promote mining
c) To export more goods d) To reduce environmental pollution

3. What is the key challenge in E – waste Management?
a) Lack of awareness b) Advanced recycling Technologies
c) Abundant natural resources d) Decreasing E – waste generation

4. What are the health hazards which can be caused by E – waste?
a) Lung Cancer b) DNA Damage c) Brain Damage d) All of these

5. The safe method of disposal of e – waste is
a) Burning in open field b) Dumping in forest
c) Thrown in water d) Incineration

6. Which gas is emitted from e – waste burning?
a) Oxygen b) Methane c) Carbon monoxide d) Helium

7. Which toxic substance commonly found in E – waste can lead to soil contamination?
a) Mercury b) Lead c) Cadmium d) All of these

8. What is the first step in e – waste management?
a) Recycling b) Manufacturing c) Collection d) Disposal

9. Which sector contributes the most to global e – waste?
a) Agriculture b) IT and Telecom c) Textile d) Construction

10. What is abbreviation of EPR?
a) Employer Producer Responsibility
b) Extended Producers Responsibility
c) E – Waste Producer Responsibility
d) E – Waste Producer Responsibility

11. E – Waste from which device has the highest gold content.
a) Television b) Mobile phone c) Electric Fan d) Refrigerator

12. Which type of e – waste is most commonly produced in households?
a) Industrial machines
b) Large appliances
c) Mobile phones
d) Lighting equipment

13. Collection centre can be established in Industrial and residential areas comes under which category.
a) Brown Category Industry
b) Red Category Industry
c) Yellow Category Industry
d) Green Category Industry

14. Provision of EPR for collecting back the waste generated by their products is part of
a) Solid Waste Management Rules, 2016
b) Plastic Waste Management Rules, 2016
c) E - Waste Management Rules, 2016
d) Construction and Demolition waste Rules, 2016

15. Statement 1 : Hazardous materials such as lead , mercury in one form on the other are present in electronic wastes.
Statement 11 : Land filling of electronic waste is the best operation from environmental point of view.
a) Statement 1 and II are true
b) Statement 1 and II are false
c) Statement I is correct and statement II is false
d) Statement I is incorrect and statement II is true

16. The plastic component in e – waste is generally used for
a) Fuel b) Packaging c) Casing d) Decoration

17. Which component in e – waste poses a serious health hazard due to lead content?
a) Display screen b) Batteries c) Metal casings d) Plastic shells

18. Which of the following is a non – ferrous metal commonly found in E – waste?
a) Iron b) Copper c) Steel d) Zinc

19. What percentage of e – waste is typically recyclable?
a) 10 % b) 25 % c) 50 % d) Over 90 %

20. Which type of waste is classified as hazardous?
a) Chemical b) Household c) Commercial d) Agricultural

21. Which e – waste component is most dangerous to human health?
a) Iron b) Zithium c) Mercury d) Aluminum

22. What is one major environmental impact of improper e – waste disposal?
a) Improved air quality
b) Ground water contamination
c) Fertile soil creation
d) Biodiversity boost

23. As per Solid Waste Management Rules 2016, e – waste should be collected in
a) Black bin
b) Blue bin
c) Green bin
d) Yellow bin

24. Which process is used to extract precious metal from e – waste?
a) Pyrolysis
b) Hydrometallurgy
c) Incineration
d) Compositing

25. Which toxic element is commonly found in the cathode ray tube of old monitors and TVs?
a) Cadmium
b) Mercury
c) Lead
d) Arsenic

26. Which of the following is not a common method for electronic waste management?
a) Shredding
b) Melting
c) Bio – leaching
d) Electroplating

27. Which harmful gas can be released during the improper incineration of e – waste?
a) Carbon – dioxide
b) Methane
c) Dioxin
d) Ozone

28. Which hazardous substance in E – waste can cause bone fragility?
a) Lead
b) Mercury
c) Cadmium
d) Brominated Flame Retardants (BFRs)

29. Which is the common source of Cadmium in E – waste?
a) CRT Monitors
b) LCD screens
c) Rechargeable batteries
d) Plastic casings

30. What is the primary reason in India for the accumulation of e – waste in Landfills?
a) High recycling costs
b) Lack of awareness
c) Inadequate recycling infrastructure
d) Lack of regulatory policies

31. What is the average lifespan of a modern smart phone before it is discarded?
a) 1 - year
b) 2 – 3 years
c) 4 – 5 years
d) 6 – 7 years

32. What is the main environmental hazard of improperly disposing of Lithium – ion batteries found in e – waste?
a) Soil acidification
b) Water contamination
c) Air pollution
d) Forest fires

33. Which chemical element is commonly used in the soldering of electronic components?
a) Iron + Copper
b) Tin + Lead
c) Aluminum + Zinc
d) Copper + Tin

34. What is the first step in the e – waste recycling process?
a) Burning
b) Collecting and transportation
c) Shredding
d) Melting

35. Which organization is often responsible for regulating e – waste recycling in a country?
a) Local NGOs
b) Educational Institutions
c) Government Environmental Agencies
d) Retail stores

36. Which of the following is a method of E – waste collection?
a) Ocean dumping
b) Take – back program
c) Burning
d) Land filling

37. Shredding in e – waste recycling is done to
a) Increase the value of the item
b) Make transportation easier
c) Break down items for material recovery
d) Remove toxic materials

38. Urban mining refers to
a) Mining in cities
b) Extracting minerals from rocks
c) Recovering valuable materials from e – waste
d) Digging for coal

39. Why is it important to remove batteries before recycling electronics?
a) To save weight
b) To reduce cost
c) To prevent chemical hazards
d) To increase resale value

40. What is the benefit of refurbishing and reusing electronic products?
a) Increased E – waste generation
b) Reduced demand for raw – materials
c) Higher environmental impact
d) Shortened product life spans

41. Which year were the E – waste (Management) Rules implemented in India?
a) 2012
b) 2014
c) 2016
d) 2018

42. Producers must obtain _____ to operate under EPR.
a) Trade license
b) EPR Authorization
c) Import license
d) Fire clearance

43. Which organization in India can issue guidelines for environmentally sound E – waste recycling?
a) National Green Tribunal (NGT)
b) Central Pollution Control Board (CPCB)
c) Ministry of Agriculture
d) Indian Council of Medical Research (ICMR)

44. Which Ministry is responsible for implementing the E – waste (Management) Rules in India?
a) Ministry of Environment, Forest and Climate change
b) Ministry of Electronic and Information Technology
c) Ministry of Heavy Industries and Public Enterprises
d) Ministry of Urban Development

45. What is the role of the Central Pollution Board in e –waste management in India?
a) Monitoring the collection and recycling of e – waste
b) Issuing guidelines and standards for e – waste disposal
c) Conducting awareness programs
d) All of these

46. Which of the following is a key component of a successful e – waste management system in India?
a) Robust collection and recycling infrastructure
b) Public – private partnerships
c) Strict Monitoring and enforcement of rules
d) All of these

47. Which of the following is a government initiative for e – waste management in India?
a) National E – waste collection programme
b) Green E – waste Initiative
c) Swachh E – waste Bharat
d) None of these

48. How often must producers update their e – waste management plan according to the E – Waste (Management) Rules , 2016?
a) Every 5 year
b) Every 2 years
c) Annually
d) As per specific Instructions

49. Under the E – waste management rules, who is responsible for setting up E – waste collection centers?
a) Consumers
b) Local Communication
c) Producers
d) Non – Government Organisation (NGOs)

50. In the context of e – waste management, what does the term 'e – waste recycling' refer to?
a) Processing discarded electronic items to recover valuable materials
b) Burning e – waste to generate energy
c) Disposing of e – waste in Landfills
d) Reusing electronic devices.

* * * * *

CBCS SCHEME

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

21CV51

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Hydrology and Water Resources Engineering

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. With neat sketch explain a qualitative representation of hydrologic cycle. **(07 Marks)**

b. The average annual rainfall in cm at four existing rain-gauge stations in a basin are 105, 79, 70 and 66. If the average depth of rainfall over the basin is to be estimated within 10% error. Determine the additional number of rain-gauges required. **(07 Marks)**

c. Define infiltration with neat sketch explain Double-ring infiltrometer. **(06 Marks)**

OR

2 a. Explain how consistency of rainfall data is checked using double mass curve method. **(06 Marks)**

b. Define Evaporation. With neat sketch explain the measurement of evaporation using IS class A pan. **(06 Marks)**

c. The isohyets for annual run off over a catchment were drawn the areas of strips between isohyets are indicated below. Find the average depth of annual precipitation over the basin.

Isohyets (cm)		Area (cm^2)
9 – 10	→	22
10 – 11	→	80
11 – 12	→	105
12 – 13	→	98
13 – 14	→	78
14 – 15	→	16

(08 Marks)

Module-2

3 a. Define Hydrograph. With neat sketch explain the components of hydrograph. **(10 Marks)**

b. The ordinates of 2-hr unit hydrograph for a particular basin are tabulated below. Determine ordinate of corresponding 6 hr unit hydrograph.

Time (hr)	0	2	4	6	8	10	12	14	16	18	20	22
2 hr UH (cumecs)	0	25	100	160	190	170	110	70	30	20	06	00

(10 Marks)

OR

4 a. Define Runoff. Explain the factors affecting the runoff. **(10 Marks)**

b. The stream flows from a catchment of 6850 hect are given in the table below. The duration of the effective rainfall is 6 hr. Derive the 6 hr – unit hydrograph.

Time (hr)	0	6	12	18	24	30	36	42	48	54	60
Flow (cumecs)	5	13	40	50	42	32	21	13	8.5	5	3

(10 Marks)

Module-3

5 a. Define Irrigation. What is the necessity of irrigation? Explain various systems of irrigation. **(10 Marks)**

b. Explain the following :
   i. Intensity of irrigation
   ii. Flow and Lift irrigation
   iii. Crop seasons
   iv. Factor affecting the duty. **(10 Marks)**

OR

6 a. Define Duty, Delta and Base period. Establish the relationship among them. **(10 Marks)**

b. A water course has a CCA of 1200 hect the intensities of irrigation for sugar crop is 20% and for wheat crop is 40% the duties of crop at the head of water course are 800 hect/cumes respectively. Find the :
   i. Discharge required at head of water course
   ii. Discharge at outlet assuming time factor of 0.8. **(10 Marks)**

Module-4

7 a. Explain the classification of canals. **(10 Marks)**

b. Define mass curve of a reservoir with neat sketch explain procedure involved in estimation of storage capacity of a reservoir using mass curve. **(10 Marks)**

OR

8 a. Define reservoir with neat sketch explain various storage zones of a reservoir. **(10 Marks)**

b. State Kennedy's silt theory and Lacy's silt theory distinguish between two. **(10 Marks)**

Module-5

9 a. What factors contribute to the occurrence of drought? Elaborate on the significance of drought contingency planning and its importance. **(10 Marks)**

b. Explain the following :
   i. Surface runoff harvesting
   ii. Runoff enhancement. **(10 Marks)**

OR

10 a. What factors contribute to the occurrence of floods? Provide a brief overview of measure to mitigate floods. **(10 Marks)**

b. Explain the following :
   i. Rainwater collection
   ii. Channel improvement. **(10 Marks)**

* * * * *

CBCS SCHEME

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

21CV52

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Transportation Engineering

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Assume missing data suitably.

Module-1

1 a. Explain the characteristics of Road transport. **(08 Marks)**

b. Summarize the important recommendations made by Jayakar Committee. **(06 Marks)**

c. Explain briefly the objects of highway planning. **(06 Marks)**

OR

2 a. Explain the factors controlling highway alignment. **(10 Marks)**

b. Explain briefly stages of engineering surveys conducted for highway alignment. **(06 Marks)**

c. Evaluate the lengths of NH and SH required in a district with a total area of 5800 km^2, developed, Semi-developed and undeveloped areas being 25, 35 and 40% of the district. The number of towns with population over 1.0, 0.5-1.0, 0.2-0.5 and 0.1-0.2 lakhs are 3, 7, 12 and 20 respectively in the district. Use the formulas :

$$NH = \left[\frac{A}{64} + \frac{B}{80} + \frac{C}{96} + 32K + 8M\right] + D$$

$$NH + SH = \left[\frac{A}{20} + \frac{B}{24} + \frac{C}{32} + 48K + 24M + 11.2N + 1.6P\right] + D$$ **(04 Marks)**

Module-2

3 a. Explain briefly highway geometric design factors. **(10 Marks)**

b. Evaluate safe overtaking sight distance and minimum length of overtaking zone. If the speeds of overtaking and overtaken vehicles are 22.22 m/sec and 11.11 m/sec respectively on a two way traffic road. The average acceleration during overtaking may be assumed as 0.90 m/sec^2 and reaction time of overtaking vehicle as 2 seconds. **(10 Marks)**

OR

4 a. Summarise the factors affecting pavement surface skid resistance or friction. **(08 Marks)**

b. Explain types of gradients in the design of vertical alignment of roads. **(04 Marks)**

c. In a heavy rainfall area, two types of road pavement are to be constructed,
(i) Two-lane SH with bituminous concrete surface of 7 m.
(ii) MDR of WBM pavement of 3.8 m wide.
Evaluate the height of crown with respect to edges for above cases, assuming straight line camber and range of camber in heavy rainfall areas for BC surface as 1 in 50 or 2% and for WBM as 1 in 33 or 3%. **(08 Marks)**

Module-3

5 a. Explain the desirable properties of road aggregates and list the various tests conducted on aggregates. **(10 Marks)**

b. Differentiate between flexible and rigid pavement. **(10 Marks)**

OR

6 a. Explain briefly desirable properties of bituminous binders and list tests conducted on bituminous binders. **(10 Marks)**

b. Explain the construction of embankment and preparation of subgrade for flexible pavement construction. **(10 Marks)**

Module-4

7 a. Explain any five (5 nos.) requirements and importance for highway drainage. **(10 Marks)**

b. The distance between the farthest point in the turf covered drainage area of average slope of 1.5% towards drain and the point of entry to side drain in 200 m is 33 min. The weighted average value of run-off coefficient is 0.25. The length of longitudinal open drain in a clayey soil from the inlet point to the cross drainage is 540 m. The velocity of flow in the side drain assumed as 0.6 m/sec, so that silting and erosion are prevented. Estimate the design capacity of flow on the side drain for 10 years period of frequency of occurrence of storm corresponding to 48 min is 70 mm/hr. **(06 Marks)**

c. Explain briefly the common types of culverts used as cross drainage structures. **(04 Marks)**

OR

8 a. What are the factors to be considered for evaluation of Vehicle Operating Cost (VOC). **(08 Marks)**

b. List the methods of economic analysis and explain briefly Rate of return method. **(06 Marks)**

c. Differentiate the annual cost of a two lane road for two types of pavement structures :

(i) WBM with thin bituminous surface at total cost of Rs.108 lakhs per km, life of 5 years, interest at 10%, Salvage value of Rs.10 lakhs after 5 years, annual average maintenance cost of Rs. 0.35 lakhs per km.

(ii) Bituminous Macadam base and bituminous concrete surface, total cost of Rs.197 lakhs, life of 15 years, interest at 8%, Salvage value of 25 lakhs at the end of 15 years, annual average maintenance cost Rs.0.75 lakhs per km. **(06 Marks)**

Module-5

9 a. Explain briefly road user characteristic factors. **(08 Marks)**

b. What are the various traffic engineering studies carried out for collecting traffic data. **(04 Marks)**

c. Explain the traffic regulation and control for safe traffic operation. **(08 Marks)**

OR

10 a. Draw a neat sketch of airport layout with component parts and explain function of each component. **(10 Marks)**

b. Explain the requirements of ballast materials used for railway track construction. **(10 Marks)**

* * * * *

CBCS SCHEME

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

BCV515C

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Solid Waste 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.

		Module – 1	M	L	C
Q.1	a.	Define the term Solid Waste. Explain the different types of Solid Waste.	10	L2	CO1
	b.	Explain the different classification of Solid Waste.	10	L2	CO1
		OR			
Q.2	a.	Appraise the policies and legislative framework of Solid Waste Management.	10	L2	CO1
	b.	Describe the Integrated Solid Waste Management with neat flow chart.	10	L2	CO1
		Module – 2			
Q.3	a.	List and explain the various factors affecting the generation of Solid Waste.	10	L2	CO2
	b.	List and explain the methods used to estimate the quantities of waste.	10	L2	CO2
		OR			
Q.4	a.	Describe the various physical and chemical properties of Solid Waste characterization.	10	L2	CO2
	b.	Describe the various biological characteristics of waste.	10	L2	CO2
		Module – 3			
Q.5	a.	List and explain the different methods of storage systems.	10	L2	CO3
	b.	List and explain the on site processing techniques in Solid Waste.	10	L2	CO3
		OR			
Q.6	a.	Distinguish between Hauled container and Stationary container system in collection of Solid Waste.	10	L2	CO3
	b.	Evaluate the different factors considered designing of Hauled Container System.	10	L2	CO3
		Module – 4			
Q.7	a.	Define the term Special Waste. Explain the different classification of Special Waste.	10	L2	CO3
	b.	Define the term land fill. Explain the different components used in land fill.	10	L2	CO3
		OR			

Q.8	**a.**	With a neat sketch, explain Lining Material used in landfill site.	**10**	**L2**	**CO4**
	b.	Explain with a neat sketch the Incineration process used in managing waste.	**10**	**L2**	**CO4**
		Module – 5			
Q.9	**a.**	Describe the importance of legislation and discuss the two case studies applied to hazardous waste management system.	**10**	**L2**	**CO4**
	b.	Explain the different techniques processing used in construction and demolition waste.	**10**	**L2**	**CO4**
		OR			
Q.10	**a.**	Explain the importance of Life cycle assessment in Solid Waste Management.	**10**	**L2**	**CO5**
	b.	Define the term B.M.W. Explain the different sources of Bio medical waste.	**10**	**L2**	**CO5**

* * * * *

CBCS SCHEME

BESK508

USN | | | | | | | | | |

Question Paper Version : A

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

Environmental Studies

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 word Ecology is proposed by
   a) Ernst Haeckel b) Helena Curtis
   c) Charles Southwick d) Charle's Darwin

2. In a grass → deer → tiger, food chain, the biomass of grass is 1 ton. The tiger biomass will be
   a) 100 kg b) 10 kg
   c) 150 kg d) 1 kg

3. Increase in fauna and decrease in flora would be harmful due to increase in
   a) Diseases b) CO_2
   c) O_2 d) Radioactive pollution

4. Most stable ecosystem is
   a) Forest b) Desert
   c) Ocean d) Mountain

5. Which one of the following is an abiotic component of the ecosystem?
   a) Bacteria b) Plants
   c) Humus d) Fungi

6. Under nourished population is more in
   a) Asia and pacific b) Europe
   c) Australia d) South America

7. Phytoplankton in an aquatic ecosystem can be considered as a
   a) Macro-consumer b) Consumer
   c) Producer d) Organism

8. The word environment is derived from
a) Greek language
b) French language
c) English language
d) Spanish language

9. Which ecological pyramid is always straight?
a) Pyramid of biomass
b) Pyramid of numbers
c) Pyramid of energy
d) Both (a) and (b)

10. The World Food Summit (1996) is pledged to reduce the number of hungry people to
a) 500 million
b) 400 million
c) 250 million
d) 100 million

11. One joule of energy is equivalent to
a) 0.2389 calories
b) 23.89 calories
c) 238.9 calories
d) 2.389 calories

12. Which of the following is used as moderator in nuclear reactor?
a) Graphite
b) Helium gas
c) Heavy water
d) All of these

13. Biomass consists of
a) Lignin
b) Cellulose
c) Hemicellulose
d) All of these

14. Hydrogen can be produced commercially by
a) Cracking of ammonia
b) Electrolysis of water
c) Both (a) and (b)
d) Gasification

15. One gram of $92^{U^{235}}$ can give electrical energy equivalent to
a) 100 MW
b) 1000 KW
c) 1 MW
d) 1000 MW

16. Deforestation generally decreases
a) Rainfall
b) Draught
c) Soil erosion
d) Global warming

17. Forests are effective sinks of
a) O_2
b) CO_2
c) NO
d) All of these

18. Percentage of fresh water available on the earth is
a) 2.8%
b) 0.1%
c) 10.6%
d) 12.15%

19. Forest and wild life are
a) Non renewable resources
b) Renewable resources
c) On exhaustible
d) None of these

20. Mineral is
a) Organic matter
b) Synthetic compound
c) Naturally occurring in organic substance
d) None of these

21. Acid rain is caused by increase in the atmospheric concentration of
a) Ozone and dust
b) SO_2 and NO_2
c) SO_3 and CO
d) CO_2 and CO

22. Main components of smog are
a) Unsaturated hydrocarbons
b) NO_X
c) Sulphur compound
d) All of these

23. Dysentry spread due to
a) Food adultration
b) Humid weather
c) Water pollution
d) Air pollution

24. Which is the most valuable recyclable component of a circuit board?
a) Copper
b) Silver
c) Gold
d) Platinum

25. The liquid waste water from baths and kitchen is called
a) Sullage
b) Domestic sewage
c) Storm water
d) Run-off

26. Bio medical waste may be disposed off by _____
a) Incineration
b) Autoclaving and land filling
c) Both (a) and (b)
d) None of these

27. Noise is
a) Load sound
b) Unwanted sound
c) Constant sound
d) Sound of high frequency

28. The process of decomposing organic waste in the presence of air is called _____
a) Reduction
b) Oxidation
c) Incineration
d) Pulverizing

29. Afforestation is necessary for
a) Soil conservation
b) Soil erosion
c) Well control
d) Low humidity

30. Biomedical waste should be treated within
a) 48 hrs
b) 12 hrs
c) 56 hrs
d) 32 hrs

31. Global warming is an
a) Ocean phenomenon
b) Atmospheric phenomenon
c) Soil phenomenon
d) None of these

32. Earth day is held every year on
a) 5^{th} June
b) 23^{rd} November
c) 22^{nd} April
d) 26^{th} January

33. Formation of hole in ozone layer is maximum over
a) India
b) Antarctica
c) Europe
d) Africa

34. International protocol to protect the ozone layer is
a) Kyotoprotocol
b) Montreal protocol
c) Vienna protocol
d) Basel protocol

35. Excess fluoride in drinking water is likely to cause
a) Blue babies
b) Flourosis
c) Taste and odour
d) None of these

36. Which of the following is not an ideal solution for tackling water crisis?
a) Drilling large number of deep bore wells
b) Population growth control
c) Water conservation in irrigation
d) Water pollution control

37. The average thickness of the ozone layer in stratosphere is
a) 1000 DU
b) 100 DU
c) 50 DU
d) 230 DU

38. Increasing skin cancer and high mutation rate are the result of
a) Ozone layer depletion
b) Acid rain
c) CO_2
d) CO

39. Bhopal gas tragedy occurred due to the leakage of
a) SO_2
b) CH_4
c) Fly ash
d) Methyl ISO cyanate

40. Environmental pollution is a
a) State problem
b) Global problem
c) Countries problem
d) Regional problem

41. Environmental protection is the fundamental duties of citizen of India under the article
a) 51 – A (g)
b) 48 – A
c) 47
d) 21

42. The Environmental Protection Act of India was enacted in the year
a) 1986
b) 1992
c) 1984
d) 1974

43. The Government of India enacted the water (prevention and control of pollution) Act in the year
a) 1972
b) 1974
c) 1977
d) 1978

44. Which of the following is an NGO?
a) Narmada Bachao Andolan
b) Bombay Natural History Society
c) Centre for science and Environment
d) All of these

45. In which year the Hon. Supreme Court of India directed to made environmental education as a compulsory subject at all levels of education?
a) 2003
b) 1997
c) 2002
d) 1986

46. First of the major environmental protection acts to be promulgated in India was
a) Water Act
b) Air act
c) Environment Act
d) None of these

47. Chernobyl nuclear disaster took place in the year
a) 1984
b) 1985
c) 1986
d) 1987

48. The Air (prevention and control of pollution) Act enacted in the year
a) 1972
b) 1981
c) 1982
d) 1984

49. Karnataka State pollution control board established in the year
a) 1974
b) 1982
c) 1986
d) 1976

50. World Environment Day is celebrated on
a) 5^{th} June
b) 5^{th} July
c) 5^{th} March
d) 5^{th} April

* * * * *

CBCS SCHEME

BESK508

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

Question Paper Version : B

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Environmental Studies

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. Global warming is an
   a) Ocean phenomenon b) Atmospheric phenomenon
   c) Soil phenomenon d) None of these

2. Earth day is held every year on
   a) 5th June b) 23rd November
   c) 22nd April d) 26th January

3. Formation of hole in ozone layer is maximum over
   a) India b) Antarctica
   c) Europe d) Africa

4. International protocol to protect the ozone layer is
   a) Kyotoprotocol b) Montreal protocol
   c) Vienna protocol d) Basel protocol

5. Excess fluoride in drinking water is likely to cause
   a) Blue babies b) Flourosis
   c) Taste and odour d) None of these

6. Which of the following is not an ideal solution for tackling water crisis?
a) Drilling large number of deep bore wells
b) Population growth control
c) Water conservation in irrigation
d) Water pollution control

7. The average thickness of the ozone layer in stratosphere is
a) 1000 DU
b) 100 DU
c) 50 DU
d) 230 DU

8. Increasing skin cancer and high mutation rate are the result of
a) Ozone layer depletion
b) Acid rain
c) CO_2
d) CO

9. Bhopal gas tragedy occurred due to the leakage of
a) SO_2
b) CH_4
c) Fly ash
d) Methyl ISO cyanate

10. Environmental pollution is a
a) State problem
b) Global problem
c) Countries problem
d) Regional problem

11. The word Ecology is proposed by
a) Ernst Haeckel
b) Helena Curtis
c) Charles Southwick
d) Charle's Darwin

12. In a grass $\rightarrow$ deer $\rightarrow$ tiger, food chain, the biomass of grass is 1 ton. The tiger biomass will be
a) 100 kg
b) 10 kg
c) 150 kg
d) 1 kg

13. Increase in fauna and decrease in flora would be harmful due to increase in
a) Diseases
b) CO_2
c) O_2
d) Radioactive pollution

14. Most stable ecosystem is
a) Forest
b) Desert
c) Ocean
d) Mountain

15. Which one of the following is an abiotic component of the ecosystem?
a) Bacteria
b) Plants
c) Humus
d) Fungi

16. Under nourished population is more in
a) Asia and pacific
b) Europe
c) Australia
d) South America

17. Phytoplankton in an aquatic ecosystem can be considered as a
a) Macro-consumer
b) Consumer
c) Producer
d) Organism

18. The word environment is derived from
a) Greek language b) French language
c) English language d) Spanish language

19. Which ecological pyramid is always straight?
a) Pyramid of biomass b) Pyramid of numbers
c) Pyramid of energy d) Both (a) and (b)

20. The World Food Summit (1996) is pledged to reduce the number of hungry people to
a) 500 million b) 400 million
c) 250 million d) 100 million

21. Environmental protection is the fundamental duties of citizen of India under the article
a) 51 – A (g) b) 48 – A
c) 47 d) 21

22. The Environmental Protection Act of India was enacted in the year
a) 1986 b) 1992
c) 1984 d) 1974

23. The Government of India enacted the water (prevention and control of pollution) Act in the year
a) 1972 b) 1974
c) 1977 d) 1978

24. Which of the following is an NGO?
a) Narmada Bachao Andolan b) Bombay Natural History Society
c) Centre for science and Environment d) All of these

25. In which year the Hon. Supreme Court of India directed to made environmental education as a compulsory subject at all levels of education?
a) 2003 b) 1997 c) 2002 d) 1986

26. First of the major environmental protection acts to be promulgated in India was
a) Water Act b) Air act
c) Environment Act d) None of these

27. Chernobyl nuclear disaster took place in the year
a) 1984 b) 1985 c) 1986 d) 1987

28. The Air (prevention and control of pollution) Act enacted in the year
a) 1972 b) 1981
c) 1982 d) 1984

29. Karnataka State pollution control board established in the year
a) 1974 b) 1982 c) 1986 d) 1976

30. World Environment Day is celebrated on
a) 5^{th} June b) 5^{th} July
c) 5^{th} March d) 5^{th} April

31. Acid rain is caused by increase in the atmospheric concentration of
a) Ozone and dust
b) SO_2 and NO_2
c) SO_3 and CO
d) CO_2 and CO

32. Main components of smog are
a) Unsaturated hydrocarbons
b) NO_X
c) Sulphur compound
d) All of these

33. Dysentry spread due to
a) Food adultration
b) Humid weather
c) Water pollution
d) Air pollution

34. Which is the most valuable recyclable component of a circuit board?
a) Copper
b) Silver
c) Gold
d) Platinum

35. The liquid waste water from baths and kitchen is called
a) Sullage
b) Domestic sewage
c) Storm water
d) Run-off

36. Bio medical waste may be disposed off by _____
a) Incineration
b) Autoclaving and land filling
c) Both (a) and (b)
d) None of these

37. Noise is
a) Load sound
b) Unwanted sound
c) Constant sound
d) Sound of high frequency

38. The process of decomposing organic waste in the presence of air is called _____
a) Reduction
b) Oxidation
c) Incineration
d) Pulverizing

39. Afforestation is necessary for
a) Soil conservation
b) Soil erosion
c) Well control
d) Low humidity

40. Biomedical waste should be treated within
a) 48 hrs
b) 12 hrs
c) 56 hrs
d) 32 hrs

41. One joule of energy is equivalent to
a) 0.2389 calories
b) 23.89 calories
c) 238.9 calories
d) 2.389 calories

42. Which of the following is used as moderator in nuclear reactor?
a) Graphite
b) Helium gas
c) Heavy water
d) All of these

43. Biomass consists of
a) Lignin
b) Cellulose
c) Hemicellulose
d) All of these

44. Hydrogen can be produced commercially by

a) Cracking of ammonia
b) Electrolysis of water
c) Both (a) and (b)
d) Gasification

45. One gram of $92^{U^{235}}$ can give electrical energy equivalent to

a) 100 MW
b) 1000 KW
c) 1 MW
d) 1000 MW

46. Deforestation generally decreases

a) Rainfall
b) Draught
c) Soil erosion
d) Global warming

47. Forests are effective sinks of

a) O_2
b) CO_2
c) NO
d) All of these

48. Percentage of fresh water available on the earth is

a) 2.8%
b) 0.1%
c) 10.6%
d) 12.15%

49. Forest and wild life are

a) Non renewable resources
b) Renewable resources
c) On exhaustible
d) None of these

50. Mineral is

a) Organic matter
b) Synthetic compound
c) Naturally occurring in organic substance
d) None of these

* * * * *

CBCS SCHEME

BESK508

USN | | | | | | | | | |

Question Paper Version : C

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

Environmental Studies

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. Acid rain is caused by increase in the atmospheric concentration of
   a) Ozone and dust b) SO_2 and NO_2
   c) SO_3 and CO d) CO_2 and CO

2. Main components of smog are
   a) Unsaturated hydrocarbons b) NO_X
   c) Sulphur compound d) All of these

3. Dysentry spread due to
   a) Food adultration b) Humid weather
   c) Water pollution d) Air pollution

4. Which is the most valuable recyclable component of a circuit board?
   a) Copper b) Silver
   c) Gold d) Platinum

5. The liquid waste water from baths and kitchen is called
   a) Sullage b) Domestic sewage
   c) Storm water d) Run-off

6. Bio medical waste may be disposed off by _____
   a) Incineration b) Autoclaving and land filling
   c) Both (a) and (b) d) None of these

7. Noise is
   a) Load sound b) Unwanted sound
   c) Constant sound d) Sound of high frequency

8. The process of decomposing organic waste in the presence of air is called _____
a) Reduction — b) Oxidation
c) Incineration — d) Pulverizing

9. Afforestation is necessary for
a) Soil conservation — b) Soil erosion
c) Well control — d) Low humidity

10. Biomedical waste should be treated within
a) 48 hrs — b) 12 hrs
c) 56 hrs — d) 32 hrs

11. Environmental protection is the fundamental duties of citizen of India under the article
a) 51 – A (g) — b) 48 – A
c) 47 — d) 21

12. The Environmental Protection Act of India was enacted in the year
a) 1986 — b) 1992
c) 1984 — d) 1974

13. The Government of India enacted the water (prevention and control of pollution) Act in the year
a) 1972 — b) 1974
c) 1977 — d) 1978

14. Which of the following is an NGO?
a) Narmada Bachao Andolan — b) Bombay Natural History Society
c) Centre for science and Environment — d) All of these

15. In which year the Hon. Supreme Court of India directed to made environmental education as a compulsory subject at all levels of education?
a) 2003 — b) 1997
c) 2002 — d) 1986

16. First of the major environmental protection acts to be promulgated in India was
a) Water Act — b) Air act
c) Environment Act — d) None of these

17. Chernobyl nuclear disaster took place in the year
a) 1984 — b) 1985
c) 1986 — d) 1987

18. The Air (prevention and control of pollution) Act enacted in the year
a) 1972 — b) 1981
c) 1982 — d) 1984

19. Karnataka State pollution control board established in the year
a) 1974 — b) 1982
c) 1986 — d) 1976

20. World Environment Day is celebrated on
a) 5^{th} June
b) 5^{th} July
c) 5^{th} March
d) 5^{th} April

21. Global warming is an
a) Ocean phenomenon
b) Atmospheric phenomenon
c) Soil phenomenon
d) None of these

22. Earth day is held every year on
a) 5^{th} June
b) 23^{rd} November
c) 22^{nd} April
d) 26^{th} January

23. Formation of hole in ozone layer is maximum over
a) India
b) Antarctica
c) Europe
d) Africa

24. International protocol to protect the ozone layer is
a) Kyotoprotocol
b) Montreal protocol
c) Vienna protocol
d) Basel protocol

25. Excess fluoride in drinking water is likely to cause
a) Blue babies
b) Flourosis
c) Taste and odour
d) None of these

26. Which of the following is not an ideal solution for tackling water crisis?
a) Drilling large number of deep bore wells
b) Population growth control
c) Water conservation in irrigation
d) Water pollution control

27. The average thickness of the ozone layer in stratosphere is
a) 1000 DU
b) 100 DU
c) 50 DU
d) 230 DU

28. Increasing skin cancer and high mutation rate are the result of
a) Ozone layer depletion
b) Acid rain
c) CO_2
d) CO

29. Bhopal gas tragedy occurred due to the leakage of
a) SO_2
b) CH_4
c) Fly ash
d) Methyl ISO cyanate

30. Environmental pollution is a
a) State problem
b) Global problem
c) Countries problem
d) Regional problem

31. One joule of energy is equivalent to
a) 0.2389 calories
b) 23.89 calories
c) 238.9 calories
d) 2.389 calories

32. Which of the following is used as moderator in nuclear reactor?
a) Graphite b) Helium gas
c) Heavy water d) All of these

33. Biomass consists of
a) Lignin b) Cellulose
c) Hemicellulose d) All of these

34. Hydrogen can be produced commercially by
a) Cracking of ammonia b) Electrolysis of water
c) Both (a) and (b) d) Gasification

35. One gram of $92^{U^{235}}$ can give electrical energy equivalent to
a) 100 MW b) 1000 KW
c) 1 MW d) 1000 MW

36. Deforestation generally decreases
a) Rainfall b) Draught
c) Soil erosion d) Global warming

37. Forests are effective sinks of
a) O_2 b) CO_2
c) NO d) All of these

38. Percentage of fresh water available on the earth is
a) 2.8% b) 0.1%
c) 10.6% d) 12.15%

39. Forest and wild life are
a) Non renewable resources b) Renewable resources
c) On exhaustible d) None of these

40. Mineral is
a) Organic matter b) Synthetic compound
c) Naturally occurring in organic substance d) None of these

41. The word Ecology is proposed by
a) Ernst Haeckel b) Helena Curtis
c) Charles Southwick d) Charle's Darwin

42. In a grass $\rightarrow$ deer $\rightarrow$ tiger, food chain, the biomass of grass is 1 ton. The tiger biomass will be
a) 100 kg b) 10 kg
c) 150 kg d) 1 kg

43. Increase in fauna and decrease in flora would be harmful due to increase in
a) Diseases b) CO_2
c) O_2 d) Radioactive pollution

44. Most stable ecosystem is
a) Forest
b) Desert
c) Ocean
d) Mountain

45. Which one of the following is an abiotic component of the ecosystem?
a) Bacteria
b) Plants
c) Humus
d) Fungi

46. Under nourished population is more in
a) Asia and pacific
b) Europe
c) Australia
d) South America

47. Phytoplankton in an aquatic ecosystem can be considered as a
a) Macro-consumer
b) Consumer
c) Producer
d) Organism

48. The word environment is derived from
a) Greek language
b) French language
c) English language
d) Spanish language

49. Which ecological pyramid is always straight?
a) Pyramid of biomass
b) Pyramid of numbers
c) Pyramid of energy
d) Both (a) and (b)

50. The World Food Summit (1996) is pledged to reduce the number of hungry people to
a) 500 million
b) 400 million
c) 250 million
d) 100 million

* * * * *

CBCS SCHEME

BESK508

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

Question Paper Version : D

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

Environmental Studies

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. Environmental protection is the fundamental duties of citizen of India under the article
a) 51 – A (g) b) 48 – A
c) 47 d) 21

2. The Environmental Protection Act of India was enacted in the year
a) 1986 b) 1992
c) 1984 d) 1974

3. The Government of India enacted the water (prevention and control of pollution) Act in the year
a) 1972 b) 1974
c) 1977 d) 1978

4. Which of the following is an NGO?
a) Narmada Bachao Andolan b) Bombay Natural History Society
c) Centre for science and Environment d) All of these

5. In which year the Hon. Supreme Court of India directed to made environmental education as a compulsory subject at all levels of education?
a) 2003 b) 1997
c) 2002 d) 1986

6. First of the major environmental protection acts to be promulgated in India was
a) Water Act b) Air act
c) Environment Act d) None of these

7. Chernobyl nuclear disaster took place in the year
a) 1984 b) 1985
c) 1986 d) 1987

8. The Air (prevention and control of pollution) Act enacted in the year
a) 1972
b) 1981
c) 1982
d) 1984

9. Karnataka State pollution control board established in the year
a) 1974
b) 1982
c) 1986
d) 1976

10. World Environment Day is celebrated on
a) 5^{th} June
b) 5^{th} July
c) 5^{th} March
d) 5^{th} April

11. Global warming is an
a) Ocean phenomenon
b) Atmospheric phenomenon
c) Soil phenomenon
d) None of these

12. Earth day is held every year on
a) 5^{th} June
b) 23^{rd} November
c) 22^{nd} April
d) 26^{th} January

13. Formation of hole in ozone layer is maximum over
a) India
b) Antarctica
c) Europe
d) Africa

14. International protocol to protect the ozone layer is
a) Kyotoprotocol
b) Montreal protocol
c) Vienna protocol
d) Basel protocol

15. Excess fluoride in drinking water is likely to cause
a) Blue babies
b) Flourosis
c) Taste and odour
d) None of these

16. Which of the following is not an ideal solution for tackling water crisis?
a) Drilling large number of deep bore wells
b) Population growth control
c) Water conservation in irrigation
d) Water pollution control

17. The average thickness of the ozone layer in stratosphere is
a) 1000 DU
b) 100 DU
c) 50 DU
d) 230 DU

18. Increasing skin cancer and high mutation rate are the result of
a) Ozone layer depletion
b) Acid rain
c) CO_2
d) CO

19. Bhopal gas tragedy occurred due to the leakage of
a) SO_2
b) CH_4
c) Fly ash
d) Methyl ISO cyanate

20. Environmental pollution is a
a) State problem b) Global problem
c) Countries problem d) Regional problem

21. One joule of energy is equivalent to
a) 0.2389 calories b) 23.89 calories
c) 238.9 calories d) 2.389 calories

22. Which of the following is used as moderator in nuclear reactor?
a) Graphite b) Helium gas
c) Heavy water d) All of these

23. Biomass consists of
a) Lignin b) Cellulose
c) Hemicellulose d) All of these

24. Hydrogen can be produced commercially by
a) Cracking of ammonia b) Electrolysis of water
c) Both (a) and (b) d) Gasification

25. One gram of $92^{U^{235}}$ can give electrical energy equivalent to
a) 100 MW b) 1000 KW
c) 1 MW d) 1000 MW

26. Deforestation generally decreases
a) Rainfall b) Draught
c) Soil erosion d) Global warming

27. Forests are effective sinks of
a) O_2 b) CO_2
c) NO d) All of these

28. Percentage of fresh water available on the earth is
a) 2.8% b) 0.1%
c) 10.6% d) 12.15%

29. Forest and wild life are
a) Non renewable resources b) Renewable resources
c) On exhaustible d) None of these

30. Mineral is
a) Organic matter b) Synthetic compound
c) Naturally occurring in organic substance d) None of these

31. The word Ecology is proposed by
a) Ernst Haeckel b) Helena Curtis
c) Charles Southwick d) Charle's Darwin

32. In a grass → deer → tiger, food chain, the biomass of grass is 1 ton. The tiger biomass will be
a) 100 kg b) 10 kg c) 150 kg d) 1 kg

33. Increase in fauna and decrease in flora would be harmful due to increase in
a) Diseases
b) CO_2
c) O_2
d) Radioactive pollution

34. Most stable ecosystem is
a) Forest
b) Desert
c) Ocean
d) Mountain

35. Which one of the following is an abiotic component of the ecosystem?
a) Bacteria
b) Plants
c) Humus
d) Fungi

36. Under nourished population is more in
a) Asia and pacific
b) Europe
c) Australia
d) South America

37. Phytoplankton in an aquatic ecosystem can be considered as a
a) Macro-consumer
b) Consumer
c) Producer
d) Organism

38. The word environment is derived from
a) Greek language
b) French language
c) English language
d) Spanish language

39. Which ecological pyramid is always straight?
a) Pyramid of biomass
b) Pyramid of numbers
c) Pyramid of energy
d) Both (a) and (b)

40. The World Food Summit (1996) is pledged to reduce the number of hungry people to
a) 500 million
b) 400 million
c) 250 million
d) 100 million

41. Acid rain is caused by increase in the atmospheric concentration of
a) Ozone and dust
b) SO_2 and NO_2
c) SO_3 and CO
d) CO_2 and CO

42. Main components of smog are
a) Unsaturated hydrocarbons
b) NO_X
c) Sulphur compound
d) All of these

43. Dysentry spread due to
a) Food adultration
b) Humid weather
c) Water pollution
d) Air pollution

44. Which is the most valuable recyclable component of a circuit board?
a) Copper
b) Silver
c) Gold
d) Platinum

45. The liquid waste water from baths and kitchen is called
a) Sullage
b) Domestic sewage
c) Storm water
d) Run-off

46. Bio medical waste may be disposed off by _____
a) Incineration
b) Autoclaving and land filling
c) Both (a) and (b)
d) None of these

47. Noise is
a) Load sound
b) Unwanted sound
c) Constant sound
d) Sound of high frequency

48. The process of decomposing organic waste in the presence of air is called _____
a) Reduction
b) Oxidation
c) Incineration
d) Pulverizing

49. Afforestation is necessary for
a) Soil conservation
b) Soil erosion
c) Well control
d) Low humidity

50. Biomedical waste should be treated within
a) 48 hrs
b) 12 hrs
c) 56 hrs
d) 32 hrs

* * * * *

CBCS SCHEME

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

21CV61

Sixth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Construction Management and Entrepreneurship

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. Define Management. What are the functions of management? **(10 Marks)**

b. Briefly, explain the key steps involved in construction planning. **(10 Marks)**

OR

2 a. Draw the network from the following activity and find critical path and total duration.

Activity	Immediate Predecessors	Duration (Days)
A	-	10
B	-	9
C	A	9
D	A	8
E	B	7
F	B	11
G	D, E	5

(08 Marks)

b. Define Gantt Chart. **(04 Marks)**

c. Define organization? Explain the different types of organization. **(08 Marks)**

Module-2

3 a. What are the factors affecting, labour productivity in construction industry. Briefly explain. **(08 Marks)**

b. Explain different class of labour employed in construction project. **(06 Marks)**

c. What are the functions of Material Management? **(06 Marks)**

OR

4 a. Enumerate the classification of construction Equipment with subclass. **(10 Marks)**

b. State the factors to be considered for selection of construction equipments. **(10 Marks)**

Module-3

5 a. Define Quality and describe Quality control and Quality assurance in construction. **(10 Marks)**

b. What are the safety measurement to be adopted during drilling and blasting, excavation? **(10 Marks)**

OR

6 a. Explain the Total Quality Management Process in construction. **(08 Marks)**

b. Discuss the Need for Engineering Ethics. **(06 Marks)**

c. Explain Safety through legislation safety campaign and insurances. **(06 Marks)**

Module-4

7 a. What is Engineering Economy? Explain the principles of engineering economics. **(08 Marks)**

b. Explain with graph, cash flow diagram. **(06 Marks)**

c. Define :
i) Present worth
ii) Future worth
iii) Marginal cost. **(06 Marks)**

OR

8 a. An Engineer has two bids for an Excavator, to be installed in a new building. The details of the bids for the excavator are as follows :

Bid	Engineers Estimates		
	Initial cost Rs.	Service life in Years	Annual operating and maintenance cost Rs.
Company A	10,50,000	15	60,000 = 00
Company B	11,00,000	15	70,500 = 00

Determine which bid should be accepted based on present worth method of comparison. Assuming 18% interest rate components annually. **(10 Marks)**

b. Explain the Interest formula for different types of
i) Single payment ii) Equal payment iii) Uniform gradient series. **(10 Marks)**

Module-5

9 a. What is Entrepreneurship? Explain in brief. **(10 Marks)**

b. Briefly, explain the Global legends how ordinary people become successful Global entrepreneurs with some examples. **(10 Marks)**

OR

10 a. Explain the concept of 5M Model in a successful Entrepreneur. **(10 Marks)**

b. What is Project Report? List the Salient Features of Project Report. **(10 Marks)**

* * * * *

CBCS SCHEME

USN | | | | | | | | | |

BCV654C

Sixth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Integrated Waste Management for a Smart City

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 physical and chemical characteristics of solid waste.	10	L2	CO1
	b.	Explain in detail about collection of municipal solid waste.	10	L2	CO1
		OR			
Q.2	a.	Explain briefly about the future challenges and issues with respect to integrated solid waste management.	10	L2	CO1
	b.	Define sanitary landfill. Explain the factors to be considered for the selection of site.	10	L2	CO1
		Module – 2			
Q.3	a.	Define Composting. Explain the factors affecting the composting.	10	L2	CO2
	b.	Explain aerobic and anaerobic composting with its micro biology.	10	L2	CO2
		OR			
Q.4	a.	Explain briefly the salient features of Solid Waste Management Rules 2016.	10	L2	CO2
	b.	Explain briefly the vision, mission and objectives of Swachh Bharath Mission.	10	L2	CO2
		Module – 3			
Q.5	a.	List the methods of energy recovery system and explain any one with neat flow chart.	10	L2	CO3
	b.	Briefly explain the current issues of solid waste management in India.	10	L2	CO3
		OR			
Q.6	a.	List any 10 smart cities proposed in first list of smart city programme and briefly explain the status of waste management of any two smart cities.	10	L2	CO3
	b.	Briefly explain incineration and pyralysis with a neat sketch.	10	L2	CO3
		Module – 4			
Q.7	a.	Briefly explain C and D waste. Enlist the activity that generate C and D waste and its effects.	10	L2	CO4
	b.	Explain briefly C and D Waste Rules 2016.	10	L2	CO4

		OR			
Q.8	**a.**	Briefly explain the beneficial use of C and D waste.	**10**	**L2**	**CO4**
	b.	List the hazardous material in C and D waste and explain any two hazardous material in C and D waste.	**10**	**L2**	**CO4**
		Module – 5			
Q.9	**a.**	Briefly explain the current issues and challenges faced by e-waste management in India.	**10**	**L2**	**CO4**
	b.	Briefly explain the E-waste Management Rules 2016.	**10**	**L2**	**CO4**
		OR			
Q.10	**a.**	Briefly explain the sources of e-waste and its effects on human health.	**10**	**L2**	**CO4**
	b.	Explain any two methods for disposal of e-waste.	**10**	**L2**	**CO4**

* * * * *

CBCS SCHEME

BCV657D

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

Question Paper Version : A

Sixth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

Quality Control and Quality Assurance

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 of the following best describes Quality Control?
a) A proactive process to prevent defects
b) A systematic approach to ensuring process meet standards
c) The application of statistical tool to improve process
d) Activities to fulfill quality requirements

2. Which term refers to systematic evaluation of a product or services to determine its acceptability?
a) Quality control b) Quality Assurance
c) Quality Inspection d) Quality Engineering

3. Purpose of quality assurance is to
a) Create mode defects b) Prevent defects
c) Detect defects d) Control cost

4. A key principle of Total Quality Management (TQM) is
a) Firefighting b) Cost reduction only
c) Quick profits d) Continuous improvement

5. Who is known as the 'father of TQM'?
a) Philip Crasby b) W. Edward Deming
c) Walter A. Shewhart d) Joseph Juran

6. Which of the following does not belong to Juran's quality Triology?
a) Quality Improvement b) Quality Assurance
c) Quality Planning d) Quality Control

7. What is the PDCA cycle?
a) A cycle for continuous improvement
b) A process for eliminating waste
c) A method for cost reduction
d) A technique for problem solving

8. What are the three main categories of cost of quality?
a) Internal, External and Appraisal cost
b) Presentation, Appraisal and failure cost
c) Prevention, Internal and External cost
d) Internal, External and Inspection cost

9. Appraisal cost are related to
a) Customer complaints
b) Machine repair
c) Employee rewards
d) Final inspection/testing

10. What is a common cause of poor quality in manufacturing?
a) Inadequate quality control
b) Effective communication
c) Customer satisfaction
d) Employee engagement

11. Which of the following is a key benefit of TQM?
a) Reduced employee turnover
b) Increased customer satisfaction and loyalty
c) Simplified reliance on external consultants
d) Increased reliance on external consultants

12. TQM tools include all except :
a) Control charts
b) Fishbone diagram
c) Brain storming
d) SWOT analysis

13. A well-defined vision statement should
a) Be Vague and open to interpretation
b) Be focused on internal processes rather than external goals
c) Be specific, measurement, achievement, relevant and time bound (SMART)
d) Be primarily communicated to senior management only

14. Performance indicators are used to
a) Evaluate employee salary
b) Monitor and improve processes
c) Control tax audits
d) Promote branding

15. Which is characteristic of effective Key Performance Indicator (KPI)
a) Time bound
b) Ambiguous
c) Hidden
d) Complex

16. Benchmarking can also be used by an organization to determine
a) Whether an organization is able to comply with standards
b) Whether an organization is able to meet customer expectations
c) Areas for future improvement to remain competitive in the market
d) All of these

17. QFD stands for
a) Quality factory design
b) Quality function deployment
c) Quick function development
d) Quality flow diagram

18. Which ISO standard focuses on customer satisfaction and continuous improvement
a) ISO 9000
b) ISO 27001
c) ISO 14000
d) ISO 45001

19. Which of the following relates both to ISO 9001 and ISO 14001?
a) Financial audit
b) Processes approach
c) Market segmentation
d) Product testing

20. The primary objectives of ISO 14001 is to
a) Improve branding
b) Minimize environmental impact
c) Increase production
d) Maximize profit

21. Statistical Quality Control (SQC) is primarily used to :
a) Monitor and control construction quality
b) Replace manual labour
c) Make cost estimates
d) predict weather patterns

22. The process of drawing a sample from a population is called
a) Inspection
b) Sampling
c) Auditing
d) Forecastng

23. The most common measure of central tendency is
a) Mode
b) Median
c) Range
d) Mean

24. Which one of the following statements best describes the standard deviation measure?
a) It gives as the spread of a data set
b) It tells how much a data set is spread from its mean
c) It is always greater than or equal to mean of a data set
d) None of these

25. Low variability in construction material means
a) Greater inconsistency
b) More waste
c) Higher costs
d) Better quality control

26. Which of the following is the primary criterion for concrete acceptance as per IS 456 : 2000?
a) 7 day compressive strength
b) 14 day compressive strength
c) 28 days compressive strength
d) 90 days compressive strength

27. Concrete is acceptable if
a) Average < fck
b) All cubes fail
c) Average $\geq$ fck + 0.825σ
d) Individual cube $\geq$ fck + σ

28. Which of the following is not a characteristic of a good building stone?
a) Low water absorption
b) High compressive strength
c) High resistance to wet and abrasion
d) High porosity

29. Control limits are based on
a) Statistical analysis
b) Supervision input
c) Arbitrary valves
d) Site Conditions

30. In the acceptance criteria for concrete in accordance with IS-456 : 2000, the variation in strength of individual specimen should not be more than
a) $\pm$ 15% of the average
b) $\pm$ 20% of the average
c) $\pm$ 25% of the average
d) $\pm$ 30% of the average

31. Hone combing in concrete occurs due to :
a) Excess cement
b) Too much water
c) High curing temp
d) Inadequate vibration

32. Brick testing frequency as per standard practice
a) One test per 1000 bricks
b) One test per 500 bricks
c) One test per 2000 bricks
d) One test per 200 bricks

33. Maximum deviation in steel bar diameter from nominal dia
a) ± 1%
b) ± 2%
c) ± 5%
d) ± 10 %

34. Minimum crushing strength of 1st class brick is
a) 3.5 N/mm^2
b) 5.0 N/mm^2
c) 7.0 N/mm^2
d) 10.0 N/mm^2

35. What is the standard testing frequency for aggregate grading?
a) Once per batch
b) Once per project
c) Every 28 days
d) Every 7 days

36. Which IS code specifies the method for compressive strength testing of concrete cubes.
a) IS 383
b) IS 456
c) IS 516
d) IS 10262

37. Silt content in sand should not exceed
a) 2%
b) 4%
c) 6%
d) 10%

38. Characteristics strength of M30 concrete means
a) Minimum strength of 30 N/mm^2
b) Average strength of 30 N/mm^2
c) Strength below which not more than 5% result fail
d) None of these

39. The rebound hammar test gives an indication of
a) Density
b) Modulus of elasticity
c) Surface hardness
d) Tensile strength

40. Fineness modulus of fine aggregate should range from
a) 1.0 to 2.0
b) 2.0 to 3.5
c) 3.0 to 3.5
d) 4.5 to 6.0

41. Quality planning begins at which stage of construction.
a) Testing
b) Construction
c) Conceptual design
d) Handover

42. Which stage involves preparing detailed specifications and standard drawings?
a) Conceptual design
b) Construction design
c) Detailed design
d) Commissioning

43. Which items is primarily responsible for quality assurance during the handover?
a) QC/QA Engineers
b) Structural designers
c) Procurement department
d) Excavation team

44. Testing stage evaluates
a) Cost variation
b) Strength and durability of construction
c) Material orders
d) Layout making

45. Preliminary design translate conceptual ideas into
a) Finishes
b) Formworks
c) Site inspection reports
d) Working plans and layouts

46. Ultrasonic Pulse Velocity (UPV) test is used to determine :
a) Compressive strength
b) Modulus of rupture
c) Internal concrete quality and uniformly
d) Water absorption

47. Which of the following is Non-Destructive Test (NDT)
a) Compressive test
b) Core test
c) Rebound hammer test
d) Impact test

48. What factor can affect the rebound hammer test results?
a) Surface roughness, moisture content, and aggregate types
b) Only the age of concrete
c) Only the thickness of concrete standards
d) Only the type of cement used

49. Purpose of NDT in QA is to
a) Damage Structure
b) Estimate concrete strength without destruction
c) Reduce QA processes
d) Reduce construction costs

50. As per IS 13311 (part 1), the UPV value > 4.5-Km/Sec indicates :
a) Excellent quality concrete
b) Good quality concrete
c) Better quality concrete
d) Very low strength concrete

* * * * *

CBCS SCHEME

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

21CV743

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Pavement Design

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Assume the missing data suitably.
3. Use of IRC:37-2001 and IRC:58-2002 is permitted.

Module-1

1 a. List and explain the desirable factors to be considered for the design of pavement. **(10 Marks)**

b. Bring out the points of difference between flexible and rigid pavements. **(10 Marks)**

OR

2 a. With the neat sketch of flexible pavement cross section show the components parts and list the functions of each layer. **(10 Marks)**

b. Bring out the difference between highway and airport pavement. **(10 Marks)**

Module-2

3 a. With the neat sketch, explain ESWL concept of dual wheel assembly. **(10 Marks)**

b. Design a highway for a wheel load of 4100 kg with a tyre pressure of 5 kg/cm^2 by Mc.Leod method. The plate bearing test carried out on subgrade soil use 30 cm diameter plate yielded by a pressure of 2.5 kg/cm^2. After 10 repitation of load at 0.5 cm deflection. **(10 Marks)**

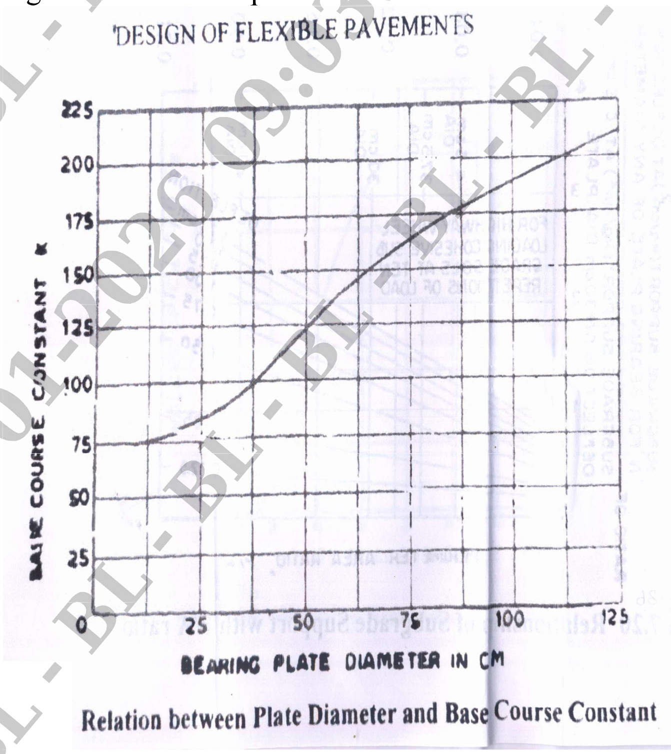


Fig.Q3 (b) – (i)

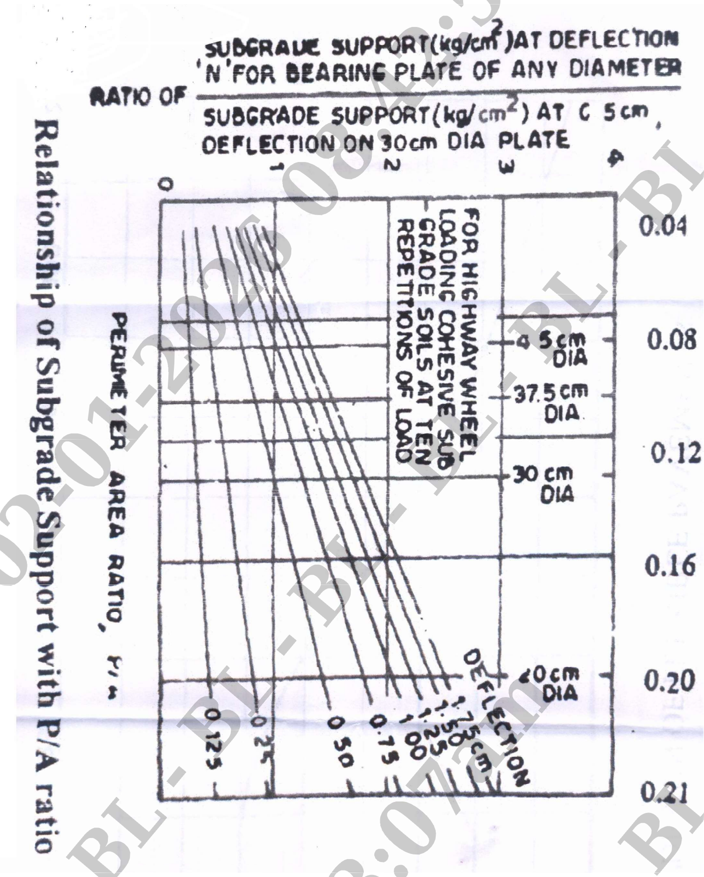


Fig.Q3 (b) – (ii)

OR

4 a. Write a note on CBR method of pavement design by cumulative standard axle load. **(10 Marks)**

b. Design a pavement section by triaxial test method using the following data :
Wheel load = 4100 kg, Radius of contact area = 15 cm, Traffic co-efficient = 1.5, Rainfall co-efficient – 0.9, Design deflection Δ = 0.25 cm, ES = 100 kg/cm^2, Eb = 400 kg/cm^2 and ε - value of 7.5 cm thick bituminous concrete = 100 kg/cm^2. **(10 Marks)**

Module-3

5 a. List the general causes for flexible pavement failures and analyze the failure with respect to sub base and base course. **(10 Marks)**

b. Explain briefly the various maintenance of bituminous surfaces. **(10 Marks)**

OR

6 a. Write a note on :
(i) Falling weight deflectometer.
(ii) Shear failure.
(iii) Frost Heaving **(10 Marks)**

b. Explain the Benkleman beam deflection method with a neat sketch. **(10 Marks)**

Module-4

7 a. Write a note on Westergaard's concept for temperature stress. **(10 Marks)**

b. Determine the warping stress at interior, edge and corner regions in a 25 cm thick concrete pavement with transverse joints at 5 m interval and longitudinal joints at 3.6 m, K = 6.9 kg/cm^3, t = 0.6ºC per cm slab thickness, a = 15 cm, $e = 10\times10^{-6}$ per ºC, μ = 0.15, E = 3×10^5 kg/cm^2. **(10 Marks)**

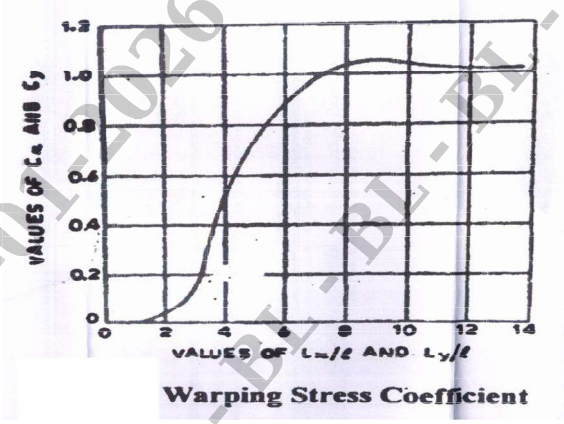


Fig. Q7 (b)

OR

8 a. Design the size and spacing of dowel bar at the expansion joints of CC pavement of thickness 25 cm with radius of relative stiffness 80 cm, P = 5000 kg. Assume load capacity of the dowel bar system as 40% of the design wheel load. Joint width is 2 cm, FS = 1000 kg/cm^2, F_t = 1400 kg/cm^2 and F_b = 100 kg/cm^2 **(10 Marks)**

b. Explain the following :

(i) Radius of relative stiffness.

(ii) Equivalent radius of resisting section.

(iii) Modulus of subgrade reaction. **(10 Marks)**

Module-5

9 a. Explain the rigid pavement failures and it's causes. **(10 Marks)**

b. Explain the different methods of pavement functional evaluation. **(10 Marks)**

OR

10 a. Explain the failures of rigid pavement due to mud pumping. **(10 Marks)**

b. Explain the various types of remedial measures in CC pavement and their uses. **(10 Marks)**

* * * * *

CBCS SCHEME

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

21CV753

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Environmental Protection and Management

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 a. Enumerate the various environment management principles and explain any two principles. **(10 Marks)**

b. Briefly explain the classification of environmental impact reduction efforts. **(10 Marks)**

OR

2 a. Discuss the various drivers and barriers for sustainable development. **(10 Marks)**

b. Highlight the charter on corporate responsibility for environmental protection. **(10 Marks)**

Module-2

3 a. Explain environmental performance evaluation process using PDCA cycle. **(10 Marks)**

b. Describe zero liquid technologies. **(10 Marks)**

OR

4 a. Enumerate the various environment quality objectives and explain any two objectives. **(10 Marks)**

b. Elaborate on concentration and mass standards. **(10 Marks)**

Module-3

5 a. What are the benefits and barriers of an ISO14001 certification, explain briefly. **(10 Marks)**

b. Discuss the operational control and monitoring and measurement in environmental management system. **(10 Marks)**

OR

6 a. List the components in a successful environmental management system and explain any two components. **(10 Marks)**

b. Write a short note on environmental management programs. **(10 Marks)**

Module-4

7 a. Describe environmental management system audits as per ISO 19011. **(10 Marks)**

b. Highlight the contents of environmental statement (Form-V). **(10 Marks)**

OR

8 a. Elucidate the roles and qualification of environmental auditor. **(10 Marks)**

b. What are the different phases of waste minimization planning, explain any three. **(10 Marks)**

Module-5

9 a. Elucidate pollution prevention and control in pulp and paper industry. **(10 Marks)**

b. List the different disposal methods of hazardous waste, explain any two methods. **(10 Marks)**

OR

10 a. Elaborate pollution prevention and control in textile industry. **(10 Marks)**

b. Write a short note on hazardous waste characteristics and treatment. **(10 Marks)**

* * * * *

CBCS SCHEME

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

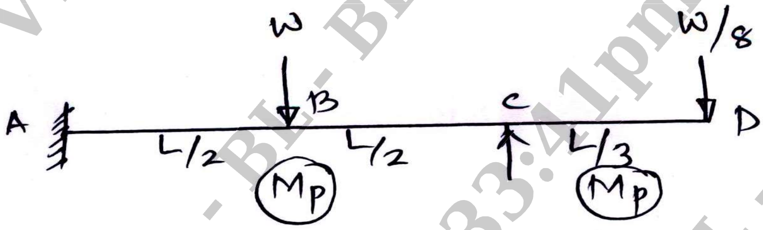
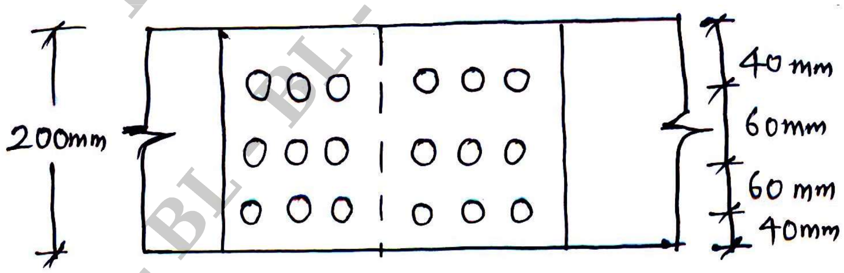
BCV701

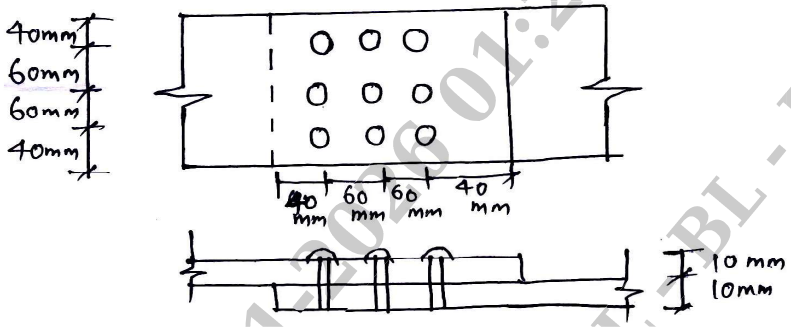
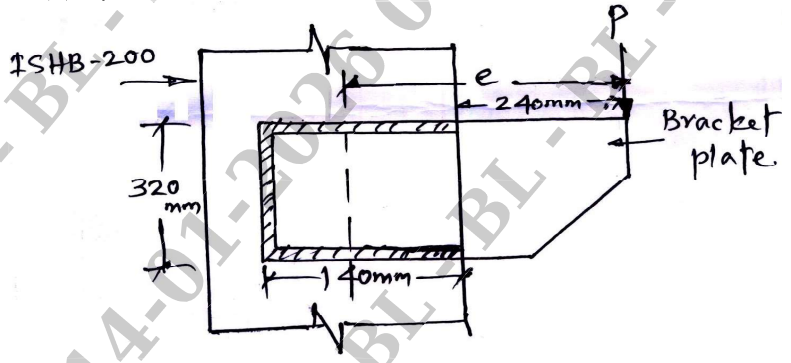
Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

Design of Steel Structures

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. Use of IS-800-2007 code and steel table is permitted.
4. Assume any missing data suitably.

		Module – 1	M	L	C
Q.1	**a.**	List out the advantages and disadvantages of steel structures.	**10**	**L2**	**CO1**
	b.	Explain the principles of limit state of design in steel structures.	**10**	**L2**	**CO1**
		OR			
Q.2	**a.**	State upper bound, lower bound and uniqueness theorems.	**10**	**L2**	**CO1**
	b.	A propped cantilever ABCD is loaded as shown in Fig.Q.2(b). Find the collapse load if the beam is of uniform cross section.  Fig.Q.2(b)	**10**	**L2**	**CO1**
		Module – 2			
Q.3	**a.**	Explain the different failure modes of a bolted joint with neat sketches.	**8**	**L2**	**CO2**
	b.	A double cover butt joint is used to connect two flats of 200 ISF10 with 8 mm cover plates. The two plates are connected by 9 bolts in chain bolting at a pitch of 60 mm and edge distance of 40 mm. The bolts are arranged in 3 rows with 3 bolts in each row as shown in Fig.Q.3(b). Determine the strength and efficiency of the joint. The diameter of the bolts used is 20 mm. Assume property class of bolt as 4.6.  Fig.Q.3(b)	**12**	**L3**	**CO2**

		OR			
Q.4	**a.**	List out the advantages and disadvantages of bolted connections.	**8**	**L2**	**CO2**
	b.	Find the efficiency of a lap joint as shown in Fig.Q.4(b). Assume M_{20} bolts of grade 4.6 and Fe-410 grade of steel plate.  Fig.Q.4(b)	**12**	**L3**	**CO2**
		Module – 3			
Q.5	**a.**	With neat sketches, explain types and properties of welds.	**6**	**L2**	**CO2**
	b.	A tie member of a roof truss consists of 2ISA (100 × 75 × 8) mm angles. The angles are connected to either side of a 10 mm thick gusset plate and the member is subjected to a working load of 300 kN. Design the welded connections and assume the connections are made in the workshop.	**14**	**L3**	**CO2**
		OR			
Q.6	**a.**	What are the advantages and disadvantages of welded connections?	**8**	**L2**	**CO2**
	b.	Determine the maximum load that can be resisted by the bracket as shown in Fig.Q.6(b) by fillet weld of size 6 mm.  Fig.Q.6(b)	**12**	**L3**	**CO2**
		Module – 4			
Q.7	**a.**	Explain the different modes of failure in tension member.	**8**	**L2**	**CO4**
	b.	Design a single angle section for a tension member of a roof truss to carry a factored load of 175 kN. The member is subjected to the possible reversal of stresses due to the action of wind. Use M_{20} black bolts of grade 4.6 for the connection and Fe410 grade steel. Draw the connection details.	**12**	**L4**	**CO4**

		OR			
Q.8	**a.**	With neat sketches explain the different types of column bases.	**6**	**L2**	**CO4**
	b.	Design a suitable slab base for a column carrying an axial factored load of 1000 kN. The column section is of ISHB-250 @ 537 N/m. Use M_{20} grade concrete pedestal and 6 mm size of the weld. Also design concrete foundation using safe bearing capacity of soil as 200 kN/m^2.	**14**	**L4**	**CO4**
		Module – 5			
Q.9	**a.**	Determine the design axial load capacity of a column ISHB 300 @ 577 N/m, if the length of column is 3 m and its both ends are pinned.	**8**	**L3**	**CO5**
	b.	Design a single angle strut connected to the gusset plate to carry an axial factored load of 180 kN. The length of the strut between centre to centre intersection is 3 m.	**12**	**L4**	**CO5**
		OR			
Q.10		Design a built up column consisting of two channels placed back to back of length 10 m to carry an axial factored load of 1400 kN. The column may be assumed to have restrained in position but not in direction at both the ends.	**20**	**L4**	**CO5**

* * * * *

CBCS SCHEME

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

BCV702

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026

Estimation and Contract 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.

		Module – 1	M	L	C
1		The details of two room building is shown in Fig.Q1. Estimate the quantities and cost of the following items of work : i. Earthwork in excavation at 450 Rs/m^3 ii. UCR Masonry in CM 1 : 6 in foundation and plinth at 5000 Rs/m^3 iii. Brickwork in CM 1 : 5 in superstructure of 30 cm wall at 7000 Rs/m^3.	20	L3	CO1

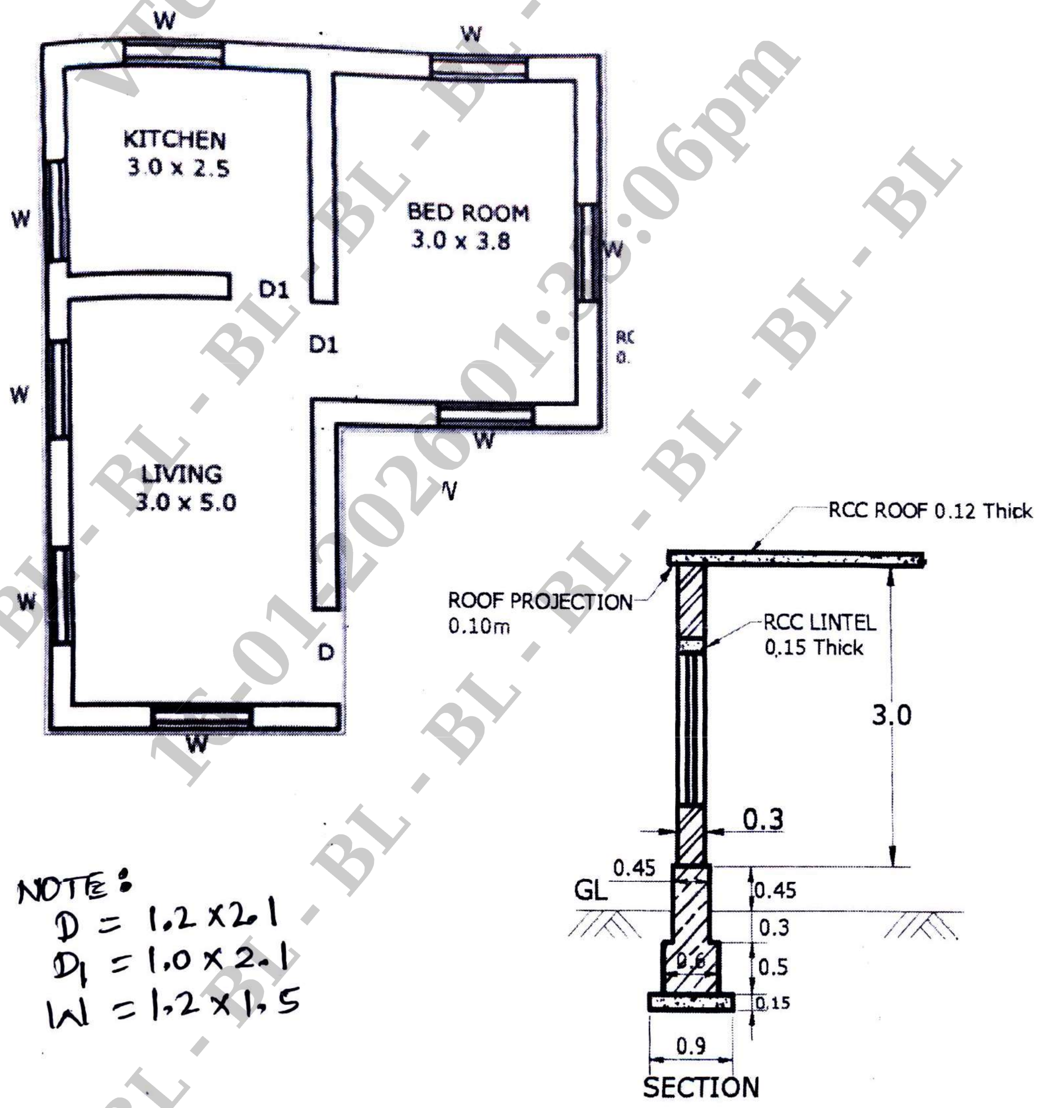


Fig.Q1

		OR			
2		What are the different types of Estimate? Explain in detail, any four different types of estimates.	**20**	**L2**	**CO1**
		Module – 2			
3		The details of Manhole is given in Fig.Q.3. Estimate the quantities of the following items : i. Earthwork Excavation in foundation ii. PCC 1 : 4 : 8 for bed concrete iii. BBM in CM 1 : 4 for side walls iv. RCC 1 : 1½ : 3 for cover slab.	**20**	**L3**	**CO2**

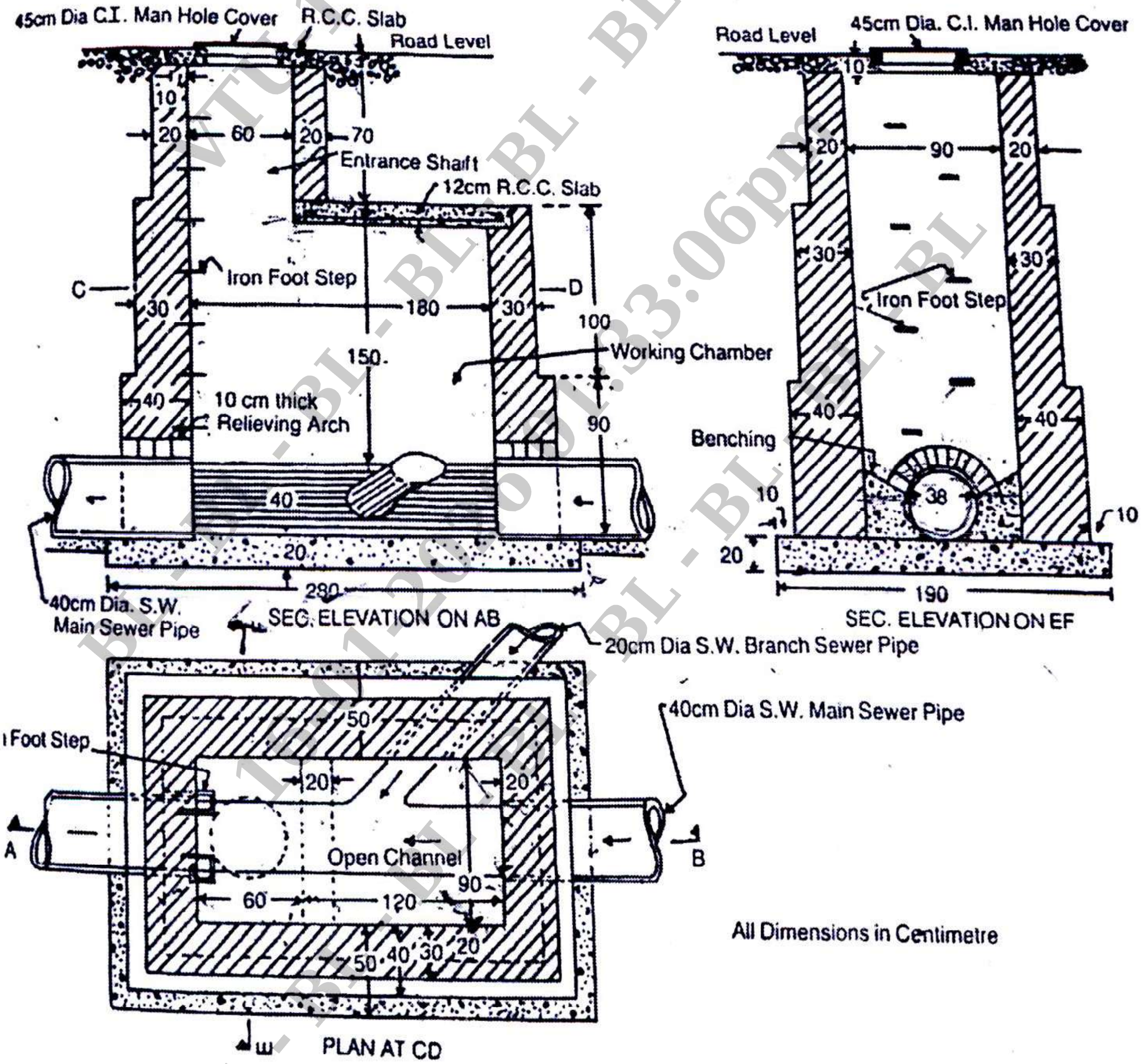


Fig.Q.3

OR

4 Estimate the cost of Earthwork for a portion of road for 400 m length from the following data : Formation width of the road is 10 m, Side slopes are 2 : 1 in banking 1½ : 1 in cutting. — **20 | L3 | CO2**

Station	Distance in meter	RL of Ground	RL of formation
25	1000	51.00	52.00
26	1040	50.90	↓
27	1080	50.50	
28	1120	50.80	
29	1160	50.60	Downward
30	1200	50.70	Gradient of
31	1240	51.20	1 in 200
32	1280	51.40	
33	1320	51.30	↓
34	1360	51.00	
35	1400	50.60	

Module – 3

Q.No.		Question	Marks	Level	CO
5		Write detailed specification for the following : i. Earthwork excavation for foundation ii. First class Brick work in CM 1 : 6 iii. Plastering work in CM 1 : 6, 12 mm thick iv. RCC 1 : 2 : 4 in roof slab.	**20**	**L2**	**CO3**
		OR			
6		Carryout the rate analysis for the following : i. CC 1 : 4 : 8 for foundation bed ii. First class brickwork in CM1 : 6 in superstructure iii. 12 mm thick cement plastering in CM 1 : 6 iv. RCC 1 : 2: 4 for roof slab.	**20**	**L2**	**CO3**
		Module – 4			
7		List the types of contract. Briefly explain any three types of contract.	**20**	**L2**	**CO4**
		OR			
8		Write short notes on : i. Administrative Approval ii. Tender documents iii. E-Tendering System iv. Turnkey Operation.	**20**	**L2**	**CO4**
		Module – 5			
9		Write short notes on : i. Liquidated Damages and Bonus ii. Measurement Book iii. Breach of Contract iv. Arbitration.	**20**	**L2**	**CO5**
		OR			
10	a.	Define the terms : i) Valuation ii) Book value iii) Depreciation iv) Sinking fund.	**10**	**L2**	**CO5**
	b.	The building fetches a gross income of Rs. 1500/- per month. Workout the capitalized value on the basis of 6% net yield, if all out going amount is equal to Rs.3000/- per annum.	**10**	**L2**	**CO5**

* * * * *

CBCS SCHEME

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

BCV703

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Prestressed Concrete

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. Use of IS:1343 is permitted.

		Module – 1	M	L	C
Q.1	a.	Define prestressed concrete. Mention it's applications.	07	L2	CO1
	b.	State the advantages and disadvantages of prestressed concrete.	08	L2	CO1
	c.	Explain the need for High strength concrete and High strength steel in PSC members.	05	L2	CO1
		OR			
Q.2	a.	Write a short note on the historical development of PSC.	08	L2	CO1
	b.	Write a short note on the different types of prestressing steel.	06	L2	CO1
	c.	Discuss the role of design codes in psc structures.	06	L2	CO1
		Module – 2			
Q.3	a.	List different types of losses in post tensioning system. Explain any two.	06	L2	CO2
	b.	A pre tensioned beam, 200 mm wide and 300 mm deep is prestressed by 10 wires of 7 mm diameter initially stressed to 1200 N/mm^2, with their centroids located 10 mm from the soffit. Find the maximum stress in concrete immediately after transfer, allowing only for elastic shortening of concrete. If concrete under grows a further shortening due to creep and shrinkage while there is a relaxation of 5% of steel stress, estimate final percentage loss of stresses using IS 1343 code and following data: $E_s = 210$ KN/mm^2, $E_c = 5000\sqrt{fck}$ fck = 42 N/mm^2, creep co-efficient (ϕ) = 1.6 Total residual shrinkage strain = 3×10^{-4}	14	L4	CO2
		OR			
Q.4	a.	Explain post tensioning anchorages devices and explain any one in details.	06	L2	CO2
	b.	Explain with sketch Hoyer's method of pretension system.	10	L2	CO2
	c.	Differentiate between mechanical, chemical and electrical prestressing methods.	04	L2	CO2
		Module – 3			
Q.5	a.	Discuss briefly load balancing concept in PSC design.	08	L2	CO3
	b.	A concrete beam of symmetrical "I" section spanning 8 m, the width and thickness of flanges are 220 mm and 60 mm respectively, the overall depth of beam is 410 mm, thickness of web is 80 mm, the beam is prestressed by a straight cable with an eccentricity of 150 mm with effective force of 150 KN, the live load on the beam is 2.5 KN/m. Draw the stress distribution diagram at central section for the loaded beam.	12	L4	CO3
		OR			
Q.6	a.	Explain stress distribution in End Block.	04	L2	CO3
	b.	Explain IS 1343 method for calculation of Bursting force.	04	L2	CO3
	c.	The end block of a post tensioned pre – stressed concrete beam 300 mm × 300 mm is subjected to a prestressing force 832.8 KN. Anchorage area 11720 mm^2. Design suitable anchorage reinforcement.	12	L4	CO3

		Module – 4			
Q.7	**a.**	Explain the types of prestressed concrete pipes.	**10**	**L2**	**CO4**
	b.	How is prestressing used in flat slab structures.	**10**	**L2**	**CO4**
		OR			
Q.8	**a.**	Describe the design considerations for one way slabs and two way slabs.	**10**	**L2**	**CO4**
	b.	Define partial prestressing and explain it's influence on serviceability and economy.	**10**	**L2**	**CO4**
		Module – 5			
Q.9	**a.**	Explain concept of composite construction in PSC Bridges.	**10**	**L2**	**CO4**
	b.	Explain the principle of balanced cantilever construction.	**10**	**L2**	**CO4**
		OR			
Q.10	**a.**	Explain the design procedure of a prestressed concrete I – girder bridge with cast in situ slab.	**10**	**L2**	**CO4**
	b.	Write short notes on Viaducts and Balanced cantilever bridges.	**10**	**L2**	**CO4**

* * * * *

CBCS SCHEME

USN

BCV755B

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Conservation of Natural Resources

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.	Discuss the ecological and economical importance of land as a natural resource.	10	L2	CO1
	b.	What are the objectives of conservation of land forms? Explain the strategies to conserve land forms.	10	L2	CO1
		OR			
Q.2	a.	Explain the indicators of soil health and discuss the strategies to improve soil health.	10	L2	CO1
	b.	Brief the causes and impact of deforestation on land resource.	10	L2	CO1
		Module – 2			
Q.3	a.	Discuss briefly on global water resource.	10	L2	CO2
	b.	Explain briefly inter basin water transfer and its importance in India.	10	L2	CO2
		OR			
Q.4	a.	Discuss about water deficit and water surplus basins of India.	10	L2	CO2
	b.	Write a note on sea water Ingress and list the methods used to reduce sea water ingress.	10	L2	CO2
		Module – 3			
Q.5	a.	Explain the sources and classification of air pollution.	10	L2	CO3
	b.	Explain the effect of air pollution on human health.	10	L2	CO3
		OR			
Q.6	a.	What is Ozone Depletion? Write its impact on human and nature.	10	L2	CO4
	b.	Explain briefly about National Ambient Air Quality Standards.	10	L2	CO4
		Module – 4			
Q.7	a.	Define Biodiversity. Explain the importance of biodiversity.	10	L2	CO3
	b.	What is habitat loss? Discuss the methods of conservation of biodiversity.	10	L2	CO3
		OR			
Q.8	a.	Discuss the various natural and anthropogenic agents which cause disturbance on climate.	10	L2	CO4
	b.	Write short notes on : i. Gene banks ii. Pollen culture iii. Social forestry iv. Zoological gardens.	10	L2	CO4
		Module – 5			
Q.9	a.	Define Global Warming. Explain the causes and effects of global warming.	10	L2	CO5
	b.	List and explain the projects which need environment clearance under EIA notifications.	10	L2	CO5
		OR			
Q.10	a.	Explain the importance of EIA in implementing projects like thermal power plant.	10	L2	CO5
	b.	What are the global efforts in conservation of biodiversity?	10	L2	CO5

* * * * *