

**B.L.D.E.A's V.P. Dr. P.G. HALAKATTI COLLEGE OF ENGINEERING  
AND TECHNOLOGY VIJYAPUR 586103**

**QUESTION PAPERS DEC.2024/JAN.2025**

**Architecture 1<sup>st</sup> to 8th Semester (B Arch)**

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# CBCS SCHEME

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21ARC14

## First Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 History of Architecture – I

Time: 3 hrs.

Max. Marks: 100

**Note:** 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. Draw relevant sketch wherever necessary.

### Module-1

- 1 a. Distinguish between Paleolithic and Neolithic ages. (10 Marks)  
b. Briefly explain city of Catal Huguk, with a neat sketches. (10 Marks)

OR

- 2 a. What is a stonehenge? Explain with a neat sketch. (08 Marks)  
b. Differentiate between passage and Gallery graves. (12 Marks)

### Module-2

- 3 a. Explain the town planning aspects of Indus-valley civilization. (10 Marks)  
b. Briefly explain with neat sketches great bath at Mohenjo – Daro. (10 Marks)

OR

- 4 a. With a help of neat sketches, explain the great pyramid of cheops. (10 Marks)  
b. Explain with neat plan and section temple of Khons, Kornak. (10 Marks)

### Module-3

- 5 a. Elaborate on the Mayan culture and architecture. (10 Marks)  
b. Explain the features of traditional Chinese architecture. (10 Marks)

OR

- 6 a. Explain the characteristics of traditional Japanese architecture indicating how they were influenced by natural forces including geography, geology and climate. (10 Marks)  
b. What were the important building typologies of Mayan civilization? What were their primary building materials and why? (10 Marks)

### Module-4

- 7 Explain the palace of Parsepolis with the help of a neat sketch. (20 Marks)

OR

- 8 Explain the city planning and dwelling of the vedic village. (20 Marks)

### Module-5

- 9 a. Describe the environmental and cultural influence that shaped settlement in desert regions like Thar and Sahara. (10 Marks)  
b. How are the dwellings of Tribal settlement influenced by their social structure and family? (10 Marks)

OR

- 10 Write short notes on :  
a. Andean Architecture  
b. Early American civilization  
c. Tribal cultures of India  
d. Materials used by early civilization in construction of their dwellings. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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## Second Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 History of Architecture - II

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 Explain Buddhist contribution to Architecture and list the salient features with Stupa example. (20 Marks)

OR

- 2 a. With suitable sketches, explain the various parts and their architectural character of a typical rock cut Chaitya hall at Ajanta. (12 Marks)  
b. Sketch the plan and section of a typical Buddhist Vihara and explain its general architectural character. (08 Marks)

### Module-2

- 3 Explain the beginning of Dravidian Architecture at Aihole with atleast two examples. (20 Marks)

OR

- 4 a. Explain the characteristic features of Shore Temple at Mammallapuram. (10 Marks)  
b. Explain the beginning of Dravidian Architecture in Mammallapuram with Rathas as example. (10 Marks)

### Module-3

- 5 Explain the contribution of Chola dynasty with the help of Brihaadeshwara Temple as example. (20 Marks)

OR

- 6 a. What was the most significant Pandyan contribution to South Indian Temple Architecture? Elaborate on the same. (10 Marks)  
b. Draw labeled plan of Madurai Meenakshi Temple complex. (10 Marks)

### Module-4

- 7 Explain the principles of design of buildings in Hoysala Architecture with atleast two examples. (20 Marks)

OR

- 8 Explain the Indo Aryan style of Architecture with the help of Lingaraja Temple as an example. (20 Marks)

### Module-5

- 9 Explain the Gujarat style of Architecture with the help of Surya Temple. (20 Marks)

OR

- 10 Explain the Vijayanagar style of Architecture with Vitthala Temple as an example. (20 Marks)

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## Third Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 History of Architecture - III

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. With suitable sketch, explain the architectural character of the "Qutub Complex" New Delhi. (10 Marks)
- b. Illustrate and explain the tomb of 'Ghia – Suddin Tugluq. (10 Marks)

**OR**

- 2 a. With the neat sketch, explain architectural features of the Tomb of Firoz Shah Tuglag. (10 Marks)
- b. Illustrate and explain with the sketches of the 'Khirkhi Masjid' – Delhi. (10 Marks)

### Module-2

- 3 a. Explain with the architectural features of 'Jami masjid' Bengal. (10 Marks)
- b. With the neat sketches, explain the architectural features of the 'Dakhil darwaza at Gaur? (10 Marks)

**OR**

- 4 a. Explain with the sketch of the façade of the Atala Masjid, Jaunpur. (10 Marks)
- b. Explain the architectural design features of the 'Golgumbaz. Bijapur. (10 Marks)

### Module-3

- 5 a. With suitable sketches, explain the architectural characteristics of the Buland Darwaza' Fatehpursikri. (10 Marks)
- b. With suitable sketches, explain the architectural features of the Bidar Jami Masjid. (10 Marks)

**OR**

- 6 a. Write a short notes on any two of the following : (10 Marks)
  - i) Jami Masjid [Fathepursikri]
  - ii) Diwan -i-Aam
  - iii) Garden [Humayun's Tomb]
- b. With a neat sketches of plan and elevation of Tomb of 'Salim Chisti' Fatehpur sikri. (10 Marks)

### Module-4

- 7 a. With a neat sketch, explain the plan of the Taj Mahal. (10 Marks)
- b. Write the short notes on any two of the following : (10 Marks)
  - i) Diwan - i - Khas
  - ii) Redfort Gateways
  - iii) Meena Bazar, Redfort

**OR**

- 8 a. Explain the features of the colonial architecture. (10 Marks)  
b. Explain the architectural characteristics of the Red Fort with the neat sketch. (10 Marks)

**Module-5**

- 9 a. Explain the architectural design features of 'Mysore Palace'. (10 Marks)  
b. With suitable sketches, explain the architectural Design features of the 'Rashtrapati Bhavan' New Delhi. (10 Marks)

**OR**

- 10 a. Write the short notes on any two of the followings :  
i) Mayo Hall  
ii) Central College, Bangalore  
iii) Commissioner office – Dharwad. (10 Marks)  
b. With neat sketches, explain the design features of the 'North and South' block at the Rashtrapati Bhavan. (10 Marks)

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21ARC35

## Third Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 Building Services – I

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing one full question from each module.*

### Module-1

- 1 a. Explain the history of sanitation. (10 Marks)
- b. What are the H<sub>2</sub>O requirements for different building types as per Indian codes? (10 Marks)

OR

- 2 a. With a neat sketch, explain the parts and working of rapid sand pressure filter. (10 Marks)
- b. What is hydro pneumatic system? (10 Marks)

### Module-2

- 3 Make a comparative study of any two types of piping used for water supply. (20 Marks)

OR

- 4 Write notes on:
  - a. Rain water harvesting (10 Marks)
  - b. Drainage provision for basement. (10 Marks)

### Module-3

- 5 a. With neat sketch, explain 2 pipe system for plumbing. (10 Marks)
- b. Mention the principles of house drainage. (10 Marks)

OR

- 6 Write notes on:
  - a. Gate value (10 Marks)
  - b. Floor trap. (10 Marks)

### Module-4

- 7 Explain the following with neat sketches:
  - i) W.C.
  - ii) Urinals.
 (20 Marks)

OR

- 8 Explain vermicomposting and management of medical waste. (20 Marks)

### Module-5

- 9 With neat sketches explain:
  - i) Wet riser system (10 Marks)
  - ii) Fire hydrant. (10 Marks)

OR

- 10 Explain solar hot water generation with the help of neat sketches. (20 Marks)

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## Third Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 Building Structures – II

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing one full question from each module.**

### Module-1

- 1 a. Explain the different types of stresses and strains with neat sketches. (10 Marks)  
 b. A brass bar, having cross-sectional area of  $2000 \text{ mm}^2$ , is subjected to axial forces as shown in Fig.Q.1(b). Find the total elongation of the bar. Take  $E = 1.05 \times 10^5 \text{ MPa}$ .

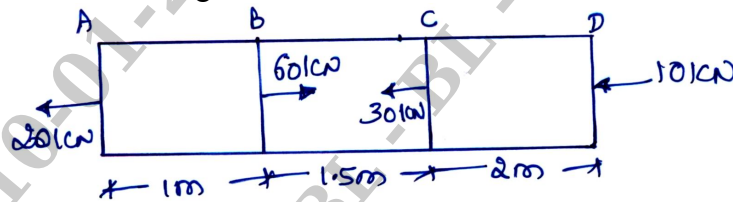


Fig.Q.1(b)

(10 Marks)

OR

- 2 a. Define:  
 i) Ductility and brittleness  
 ii) Elasticity  
 iii) Hook's law  
 iv) Poisson's ratio  
 v) Factor of safety. (10 Marks)  
 b. A stepped bar circular cross-section 3 m length is subjected to an axial of 70 kN. Find the stress, strain and deformation in each section. Also find the total deformation. Take  $E = 200 \text{ GPa}$ . (10 Marks)

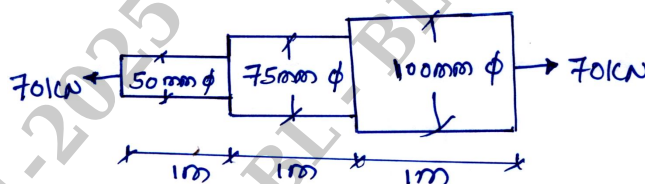


Fig.Q.2(b)

### Module-2

- 3 a. Explain the terms-Young's modulus, shear modulus and bulk modulus. Also write the relation between the 3 elastic constants E, G and K. (10 Marks)  
 b. A bar of 50 mm diameter is subjected to a pull of 80 kN. The measured extension of length of 250 mm bar is 0.15 mm and change in diameter is 0.0025 mm. Determine :  
 i) Longitudinal strain and lateral strain  
 ii) Young's modulus  
 iii) Poisson's ratio  
 iv) Bulk modulus. (10 Marks)

OR

- 4 a. Explain temperature effects on structures. (10 Marks)  
 b. State the expression for elongation of a uniformly tapering circular bar subjected to axial tension with usual notations. (10 Marks)

**Module-3**

- 5 a. State and explain Euler's formula for long columns. (10 Marks)  
 b. A column of timber section  $20 \text{ cm} \times 30 \text{ cm}$  is  $8 \text{ m}$  long, both ends being fixed. If the Young's modulus for timber is  $17.5 \text{ kN/mm}^2$ , determine:  
 i) Crippling load  
 ii) Safe load for the column if factor of safety is 3. (10 Marks)

OR

- 6 a. What are the assumptions made in Euler's column theory? Also explain the limitations of Euler's theory. (10 Marks)  
 b. A hollow alloy tube  $5 \text{ m}$  long with external and internal diameters  $40 \text{ mm}$  and  $30 \text{ mm}$  respectively was found to extend by  $5 \text{ mm}$  under a tensile load of  $80 \text{ kN}$ . Find the buckling load for the tube when used as a column with both ends hinged. Also find the safe load for the tube, taking a factor of safety = 3. (10 Marks)

**Module-4**

- 7 a. Explain the following with neat sketches:  
 i) Shear force and bending moment.  
 ii) Shear force diagram and bending moment diagram.  
 iii) Pure bending and point of contraflexure. (10 Marks)  
 b. Draw the SFD and BMD for a cantilever beam shown in Fig.Q.7(b). (10 Marks)

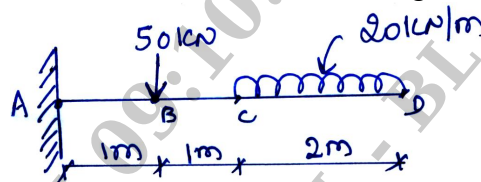


Fig.Q.7(b)

OR

- 8 a. A cantilever of length  $3 \text{ m}$  carries a UDL of  $10 \text{ kN/m}$  run over the whole length and a point load of  $5 \text{ kN}$  at a distance of  $1 \text{ m}$  from free end. Draw SFD and BMD. (08 Marks)  
 b. The simply supported beam shown in Fig.Q.8(b) carries 2 concentrated load and a UDL. Draw the SFD and BMD.

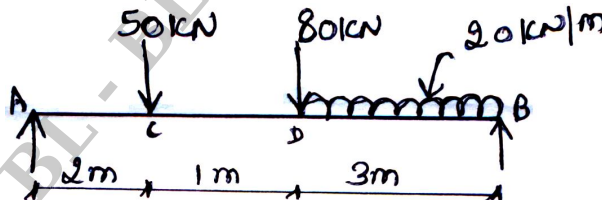


Fig.Q.8(b)

(12 Marks)



**Module-5**

- 9 a. Write the bending equation for the beams and expand each of the notations in the equation. Also write the assumptions used in the simple bending equation. (10 Marks)
- b. A cast iron T-section has a length of 3 m and is subjected to a point load of 50 kN as shown in Fig.Q.9(b). Determine the maximum tensile and maximum compressive stress. (10 Marks)

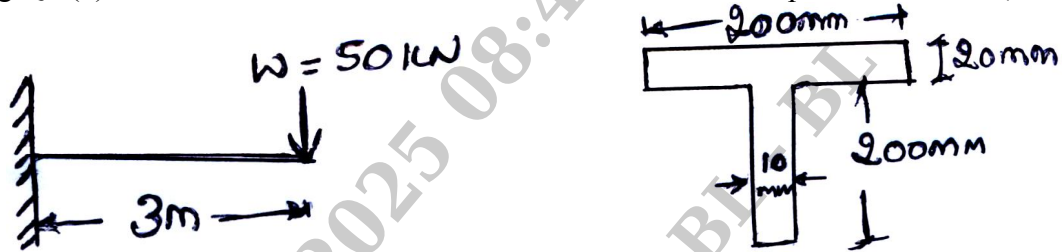


Fig.Q.9(b)

**OR**

- 10 a. Define:
- Neutral axis
  - Section modulus
  - Pure bending
- (06 Marks)
- b. A cantilever of length 2 m fails when a load of 5 kN is applied at the free end. If the beam is 50 mm × 50 mm, find the stress at the failure. (06 Marks)
- c. A beam of an I-section consists of 200 mm × 20 mm flanges and a web of 300 mm depth and 15 mm thickness is subjected to a shear force of 50 kN. Draw the shear stress variation diagram across the depth. Take  $I = 200 \times 10^6 \text{ mm}^4$ . (08 Marks)

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## Fourth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 Building Services - II

Time: 3 hrs.

Max. Marks: 100

**Note:** Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. What are the conventional and Non-conventional sources of energy ; explain its impacts and implications. (10 Marks)  
b. Explain with neat sketch any one method of generation of electricity. (10 Marks)

OR

- 2 a. Draw a single line diagram/general arrangement drawing of a sub-station and explain its parts and working. (10 Marks)  
b. With a neat block diagram, explain in detail the distribution of electricity from the generation station to the end user. (10 Marks)

### Module-2

- 3 a. Sketch and explain LT and HT cables, explain with a labelled sketch all parts of a armoured cable. (10 Marks)  
b. What are the various types of wiring installation systems? (10 Marks)

OR

- 4 Write short notes on :  
i) Rising main and Sub mains  
ii) N ZEB  
iii) Thermal Load Reduction  
iv) Energy Conservation Techniques (20 Marks)

### Module-3

- 5 What is Earthing? Why is it Done ; explain with sketches any two types of Earthing. (20 Marks)

OR

- 6 Write short notes on :  
i) MCCB and ELCB  
ii) Air Circuit Breakers  
iii) Fuses  
iv) Lighting Protection System. (20 Marks)

### Module-4

- 7 a. What is Lighting? What are the factors contributing to Good Lighting? (10 Marks)  
b. Explain in detail different Lighting Methods/Systems of Luminaries with neat sketches and their application. (10 Marks)

OR

8 Write short notes on :

- a) Laws of Illumination
- b) Glare
- c) Façade and Landscape Light
- d) Sodium vapour and Mercury vapour Lamps

(20 Marks)

**Module-5**

9 What is ELVS? Explain its necessity explain in detail any 3 types of ELVS used in a building. (20 Marks)

OR

10 For a 2BHK Residence ; prepare an electrical layout and calculate electrical load showing the following :

- i) Light points
- ii) Fans
- iii) Power points
- iv) Low voltages points
- v) DB
- vi) Meter Board

(20 Marks)

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18ARC53

## Fifth Semester B. Arch. Degree Examination, Dec.2024/Jan.2025 Building Services – II

Time: 3 hrs.

Max. Marks: 100

**Note:** 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. Support your answer with neat sketches.

### Module-1

- 1 a. Explain the process of generation, transmission and distribution of electricity from the generating station to the houses with a neat diagram. (10 Marks)  
b. Describe the voltage levels during the transmission and distribution from generating station to the house. (10 Marks)

OR

- 2 a. What is conductor? Explain the different types of conductor. (10 Marks)  
b. Explain the types of transforms with neat sketches. (10 Marks)

### Module-2

- 3 Classify the Rising mains, sub mains and circuit mains in a circuit. (20 Marks)

OR

- 4 Identify the different renewable energy system and elaborate any one system in detail. (20 Marks)

### Module-3

- 5 Why earthing appliances are important? Explain with a neat sketch plate earthing arrangement. (20 Marks)

OR

- 6 Write short note on :  
a) Fuse b) MCB c) Pipe earthing d) Faraday's cage (20 Marks)

### Module-4

- 7 Write short notes on :  
a) Task lighting b) Accent lighting c) Flood light d) Ambient light (20 Marks)

OR

- 8 a. Explain illumination and Laws of illumination. (10 Marks)  
b. Discuss the cause of Glare and different types of Glare. (10 Marks)

### Module-5

- 9 Prepare an electrical layout for a bedroom and an attached bathroom using Indian standard notations. Calculate the load. Mention the number of electrical units and heights of their installations. (20 Marks)

OR

- 10 What are extra low voltage systems? Explain any 2 in detail. (20 Marks)

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18ARC54

**Fifth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025**

## History of Architecture - V

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. We see some common features in Islam are cubes, Slender structures, round roof, Arches and blend of Geometrical shapes. Discuss these characteristics features of Islamic Architecture with the help of sketches. (10 Marks)
- b. Draw a layout of Qutub complex showing its development from Qutub Minar to subsequent iconic additions by Iltutmish and Allaudin Khilji. Explain any one important monumental structure in detail. (10 Marks)

**OR**

- 2 a. Explain with the help sketches the following :
  - i) Tomb of Ghiyasuddin Tughlaq
  - ii) Khirki Masjid. (10 Marks)
- b. Sayyid and Lodi constructed the tombs in two different forms ; one pattern was based on octagonal plan and other one was square based. Describe the tombs of these periods with example of one tomb from each Dynasty. (10 Marks)

### Module-2

- 3 a. How did geographical conditions influence architecture of Bengal? (06 Marks)
- b. Explain with neat sketches the Eklakhi Tomb. (14 Marks)

**OR**

- 4 What are the special features of Jami Masjid, Ahmedabad? Explain with sketches. (20 Marks)

### Module-3

- 5 Explain the architectural characteristics of the following with neat sketch :
  - a. Tomb of salim chistri
  - b. Jami Masjid, Gulbarga. (20 Marks)

**OR**

- 6 Explain with neat sketch, the Humayun;s Tomb. (20 Marks)

### Module-4

- 7 An immense mausoleum of white marble, built in Agra between 1631 and 1648 by order of the Mughal emperor shah Jahan in memory of his wife, the Taj Mahal is the Jewel of Muslim Art.
  - a. Draw the plan of the Taj Mahal complex and show all monumental structures. (10 Marks)
  - b. Discuss the architectural features of the Taj Mahal in Detail. (10 Marks)

**OR**

- 8 a. Write short notes on the following :
  - i) Akbar's Tomb
  - ii) Mughal Gardens. (10 Marks)
- b. Colonization had great impact on architecture and marked a new chapter in India architecture. Point out the important architectural styles under colonial regime. (10 Marks)

**Module-5**

9 Explain the salient features of Town Hall, Bombay, with the help of sketches. (20 Marks)

**OR**

10 What are the various city planning considerations which Edwin Lutyens considered to design, New Delhi. (20 Marks)

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## Fifth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 History of Architecture - V

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Explain the factors which influenced the birth of Renaissance Architecture in Europe. (08 Marks)
- b. Explain the principles of Palladian Architecture with an example. (12 Marks)

**OR**

- 2 Elaborate the following with an example :
  - a. Greek Revival. (10 Marks)
  - b. Gothic Revival. (10 Marks)

### Module-2

- 3 Briefly explain the impact of Industrial Revolution in the field of Architecture. (20 Marks)

**OR**

- 4 Explain the significant Architectural example, the ART – NOUVEAU movement, the Arts and crafts movement. (20 Marks)

### Module-3

- 5 Explain the Architectural features of De Stijl movement with an example. (20 Marks)

**OR**

- 6 Discuss the ideologies and works of MIES VAN DER ROHE with suitable example. (20 Marks)

### Module-4

- 7 Explain with sketches any two of the following :
  - a. Lovell Beach house.
  - b. Phillip Johnson , Glass house.
  - c. Oscar Niemeyer work in Brazilia. (20 Marks)

**OR**

- 8 Explain the ideas and any work of Architecture Kenzo Tange with examples. (20 Marks)

### Module-5

- 9 Briefly explain the characteristics of Brutalism in Architecture with two examples of Architects involved and their works. (20 Marks)

**OR**

- 10 Elaborate on the contribution of Engineers like Pierre Luigi Nervi during modern movement. (20 Marks)

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## Fifth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 Building Services – III

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. Explain what is Mechanical Ventilation system. What is the need for Mechanical Ventilation? (10 Marks)
- b. Explain the various types of Ventilation Systems (mechanical) for buildings. (10 Marks)

**OR**

- 2 What are the components involved in mechanical ventilation? Explain briefly basic ventilation methods for Basements. (20 Marks)

### Module-2

- 3 a. Write short note on Air Conditioning and its types. (10 Marks)
- b. Mention the key parts of AC and explain its working. (10 Marks)

**OR**

- 4 Explain the specialized air conditioning system used in clean rooms or server rooms with sketches. (20 Marks)

### Module-3

- 5 Explain parts of traction lift with neat sketches. Brief on its working. (20 Marks)

**OR**

- 6 a. What are the various escalator configurations? Explain each with neat sketches. (10 Marks)
- b. Explain the factors that affect the design of an escalator. (10 Marks)

### Module-4

- 7 a. What are Fire hazards? What is Grading of structural elements for fire resistance as per NBC? (10 Marks)
- b. Explain briefly types of Fire classes. (10 Marks)

**OR**

- 8 Explain Passive fire protection design in buildings. (20 Marks)

### Module-5

- 9 Describe Dry and Wet Riser system in detail. (20 Marks)

**OR**

- 10 Explain the various fire protection requirements for a multi-storied building in India. (20 Marks)

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## Sixth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025

### Building Services – III

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing one full question from each module.*

#### Module-1

- 1 a. Express the NBC guidelines for the kitchen ventilation. (08 Marks)
- b. Explain the need and types of mechanical ventilations. (12 Marks)

OR

- 2 a. Write short notes on:
  - i) Air distribution systems
  - ii) Load calculation parameters
  - iii) Psychometric processes. (12 Marks)
- b. Explain refrigeration cycle with neat line diagram. (08 Marks)

#### Module-2

- 3 a. Explain types of central air conditioning systems. (14 Marks)
- b. What are water and air cooled chillers? (06 Marks)

OR

- 4 Write short notes on:
  - a. Clean room AC system
  - b. A.H.O.
  - c. Ducting system
  - d. OT AC system. (20 Marks)

#### Module-3

- 5 a. Explain with neat sketch the traction (mechanical) elevator system. (14 Marks)
- b. What is Quality and Quantity of service with respect to elevator system? (06 Marks)

OR

- 6 Explain the escalator components with neat sketch and working principle. (20 Marks)

#### Module-4

- 7 Write short notes on:
  - a. Classification of fire (07 Marks)
  - b. Classification of buildings as per MBC (07 Marks)
  - c. Combustible and non-combustible materials. (06 Marks)

OR

- 8 a. Explain the fundamentals and methods of passive fire protection in buildings. (14 Marks)
- b. Write about refuse area and compartmentation and its importance. (06 Marks)

#### Module-5

- 9 Explain active fire protection systems. (20 Marks)

OR

- 10 What are NBC rules and fire fighting requirements for high rise buildings in India? (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

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## Sixth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025

### Contemporary Architecture

Time: 3 hrs.

Max. Marks: 100

**Note: 1. Answer any FIVE full questions, choosing one full question from each module.  
2. Draw relevant sketches to substantiate your answers.**

#### Module-1

- 1 a. How does the Indo Sarascenic style of architecture read into the built fabric of the princely state of Mysore? (10 Marks)
- b. Explain briefly how the princely state of Bikaner was modeled on borrowed principles from the British Empire. (10 Marks)

**OR**

- 2 Architect Le-Corbusier's seminal works in India were "Archaic and progressive" in nature for the nascent stage of modern architecture in the country. Explain the principles that were manifested through the following examples:
  - a. Mill owners association, Ahmedabad
  - b. The assembly building, capital complex, Chandigarh. (20 Marks)

#### Module-2

- 3 The approximation of streets and gate ways of the old town of Jaisalmer is seen in the planning of the Asian games village in New Delhi. Explain the same in detail. (20 Marks)

**OR**

- 4 Post independence many Indian architects indulges into architecture of campus designs across the country. Discuss the campus design projects of any two of the following architects:
  - a. Ar. Anant Raje
  - b. Ar. Achyut Kaminde
  - c. Ar. Uttam Jain. (20 Marks)

#### Module-3

- 5 "White is the most beautiful colour, because within it you can see all the colours of the rainbow". Which architect said this? Explain the same with relevant examples. (20 Marks)

**OR**

- 6 Explain the ideas and works of architect Franck Ghery that reflect the principles of Deconstructinism. (20 Marks)

#### Module-4

- 7 Explain the principles of High-tech architecture as seen in the works of:
  - a. Renzo Piano
  - b. Santiago Calatrane. (20 Marks)

**OR**

- 8** Discuss the ideas and works of the following architects who are continuously influencing present day architecture:
- a. Robert Venturi
  - b. James Sterling.
- (20 Marks)**

**Module-5**

- 9** Architect Zaha Hadid's works are more appropriate to public buildings rather than private buildings due to abstraction and layered approach to design. Explain the same using relevant examples.
- (20 Marks)**

**OR**

- 10** Briefly explain the Hyper theories in architecture as seen in the works of the following architects:
- a. Rem Koolhaas
  - b. Peter Eisenman.
- (20 Marks)**

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## Sixth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 Landscape Architecture

Time: 3 hrs.

Max. Marks: 100

**Note:** Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Explain how landscape architecture varies in scale, and the due role played by a landscape architect. (08 Marks)
- b. Describe what is your understanding of the term landscape design. (06 Marks)
- c. Briefly narrate the journey of landscapes through the history of mankind. (06 Marks)

OR

- 2 a. Explain the scope of the profession of landscape architecture and its various domains of study. (06 Marks)
- b. Enlist the natural landforms and the factors of influence it is exposed to. (10 Marks)
- c. Sketch any one landscape for the pre-historic times. (04 Marks)

### Module-2

- 3 a. Differentiate between site inventory and site analysis. (10 Marks)
- b. Describe the various components of study to arrive at site suitability plans. (10 Marks)

OR

- 4 Demonstrate architectural responses to landscapes by illustrating architectural interventions on a hypothetical sloped site of your choice. (20 Marks)

### Module-3

- 5 a. Differentiate between hardscapes and softscapes in landscapes with substantial sketches. (12 Marks)
- b. Explain how you would manipulate landforms to enhance the quality of a space in a landscape. (08 Marks)

OR

- 6 a. Explain through sketches, the various types of softscapes you identify in a landscaped area. (08 Marks)
- b. Write short notes on groundcovers in landscapes. (05 Marks)
- c. Define landscapes and sketch any two types of stone pavers in landscapes. (07 Marks)

### Module-4

- 7 Demonstrate the design philosophies through sketches describing features of Italian and French gardens. (20 Marks)

OR

- 8 Describe a contemporary landscape design by any prominent landscape architect or architecture firms. (20 Marks)

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**Module-5**

- 9 Design the landscaping for the front portico of a hotel in a city. The drop –off area needs to accommodate guests waiting. Suggest the design and material selection for the driveway and foundation planting in the space between the assumed building and the compound wall. The suggestions of landscapes and softscapes in a scaled plan, section and the suggested landscape elements and water features may be sketches as 2 views. (20 Marks)

**OR**

- 10 Design the landscaping for the forntyard of a house in the suburbs of a city, the design should address issues of sustainable planting and hardscapes. The same to be denoted on neatly sketched out, scaled plan and sections, and 2 views. (20 Marks)

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## Seventh Semester B.Arch. Degree Examination, Dec.2024/Jan.2025

### Building Services – IV

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing one full question from each module.*

#### Module-1

- 1 a. Explain the terms 'Sound and Distance', and 'Inverse square law', with neat sketches. (08 Marks)  
 b. What is sound reverberation and reverberation time? Explain Sabine's and Eyring's formula relevant in this connection. (12 Marks)

OR

- 2 a. What is meant by sound reflection? Explain sound reflection from plane, concave and convex surfaces. (08 Marks)  
 b. What are acoustical defects? Explain with neat sketches various acoustical defects and different measures to rectify it. (12 Marks)

#### Module-2

- 3 a. Explain the concept of floating floors, space absorber and acoustical filter. (10 Marks)  
 b. Explain measures of sound insulation for floors and ceiling with neat sketches. (10 Marks)

OR

- 4 a. Explain with neat sketches the working principle of cavity resonators. (08 Marks)  
 b. Explain the term sound absorption and sound absorption coefficient. Discuss in detail, the characteristics of typical sound absorbers. (12 Marks)

#### Module-3

- 5 Explain the distribution of acoustical material and the suggested absorbing materials as per the IS code 2526 – 1963. (20 Marks)

OR

- 6 a. Explain the various architectural considerations involved in the design of a medium capacity concert hall. (08 Marks)  
 b. Discuss in detail the use of IS code 2526-1963 for the design and detailing of an open air theatre. (12 Marks)

#### Module-4

- 7 a. List the causes of indoor noises. How can architectural planning help in minimizing the same? Explain. (10 Marks)  
 b. Explain the specific measures for controlling the equipment noise in building. (10 Marks)

OR

- 8 a. Explain different types of noise transmission in the buildings. (08 Marks)  
 b. What is STC (Sound Transmission Class) ratings? Explain its application in designing an acoustical space. (12 Marks)

**Module-5**

- 9 a. Explain the measures required for industrial noise reduction. (10 Marks)  
b. How a problem of street noise is handled in neighbourhood level? Explain. (10 Marks)

**OR**

- 10 Explain factors responsible for environmental noise and problems due to such noises through examples. Suggest the remedial measures to reduce the noise level in the environment, through sketches and examples. (20 Marks)

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## Seventh Semester B.Arch. Degree Examination, Dec. 2024 / Jan. 2025 Urban Design

Time: 3 hrs.

Max. Marks: 100

**Note:** 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. Draw neat sketches wherever necessary.

### Module-1

- 1 a. What is urban design? Briefly explain the elements of urban design. (10 Marks)  
b. Compare the scale of architecture and Urban design. (10 Marks)

OR

- 2 a. What is “legibility of the city” as per Kevin Lynch? (10 Marks)  
b. According to Kevin Lynch, what are the elements that define the legibility of the city? (10 Marks)

### Module-2

- 3 What is “serial vision”? Discuss the importance of serial vision in architecture and urban design as discussed by Gordon Cullen in his book “The Concise Townscape”. (20 Marks)

OR

- 4 Discuss Jane Jacob’s concept of “Eyes on the streets” with examples. (20 Marks)

### Module-3

- 5 a. What are the factors influencing morphological transformation of a place. (10 Marks)  
b. Discuss Collin Rowe’s critique of modernist architecture and urbanism. (10 Marks)

OR

- 6 What are mental maps? Discuss Kevin Lynch’s idea of mental mapping as a method to understand legibility of the city. (20 Marks)

### Module-4

- 7 Discuss Kevin Lynch’s theories on urbanism proposed in his book “Good City Form”. (20 Marks)

OR

- 8 Describe using an Indian example, Charles Correa’s approach to projects in Indian cities. (20 Marks)

### Module-5

- 9 Describe the typology of urban public spaces with neat sketches. (20 Marks)

OR

- 10 What according to Charles Correa, was the relationship between people’s activities and the built environment in Indian cities? (20 Marks)

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**Seventh Semester B.Arch. Degree Examination, Dec.2024/Jan.2025**  
**Professional Practice**

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

**Module-1**

- 1 a. Differentiate between profession and business. (10 Marks)  
 b. Which are the seven schedules of services by Architects? (10 Marks)

**OR**

- 2 Elaborate on the scale of fees and stages of payment adhered by Architects. (20 Marks)

**Module-2**

- 3 Explain the "Code of Ethics" laid down by COA. Explain in detail. (20 Marks)

**OR**

- 4 Discuss the regulations to be followed for conducting an architectural competition for a private project as per COA guidelines. (20 Marks)

**Module-3**

- 5 a. Write short notes on Earnest Money Deposit and Retention amount. (10 Marks)  
 b. Explain in detail "TENDERING PROCEDURE". (10 Marks)

**OR**

- 6 a. Write short notes on:  
     (i) Liquidated and Unliquidated damages. (10 Marks)  
     (ii) Latent and Patent defects. (10 Marks)  
 b. Discuss the most important terms and conditions put forth in the contract document, for an effective contract management. (10 Marks)

**Module-4**

- 7 Explain powers and duties of an Arbitrator in detail. (20 Marks)

**OR**

- 8 a. What is the purpose of valuation? (10 Marks)  
 b. Explain any ONE method of valuation in detail. (10 Marks)

**Module-5**

- 9 Discuss the role of an employer, architect and contractor considering the case of a big project for achieving successful completion. (20 Marks)

**OR**

- 10 a. What is an easement? Explain any TWO Easement rights. (10 Marks)  
 b. Highlight the role of Architect in protecting the interest of clients towards "Easement rights" with examples. (10 Marks)

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## Seventh Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 Estimation and Costing

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. What is an Estimate? Explain the need of Estimation. (08 Marks)
- b. Explain factors affecting Estimate. (12 Marks)

**OR**

- 2 a. Write a detailed specification for Earth work excavation in foundation. (10 Marks)
- b. Write a detailed specification for PCC. (10 Marks)

### Module-2

- 3 a. What is BOQ? Explain its importance. (10 Marks)
- b. What is a Contract? Explain about labour contract. Discuss its advantages and disadvantages. (10 Marks)

**OR**

- 4 Write a note on mandatory test and safety measures included in specification for construction. (20 Marks)

### Module-3

- 5 a. What is schedule of Rates? Discuss in detail why rate varies. (10 Marks)
- b. Prepare Rate analysis for PCC 1 : 4 : 8 using 40mm down Aggregate. (10 Marks)

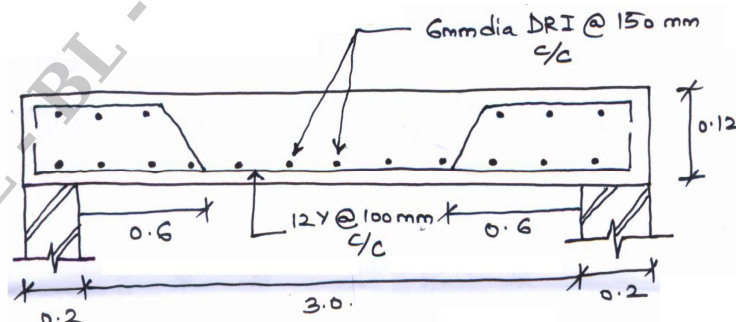
**OR**

- 6 a. Explain what is meant by Rate Analysis. (05 Marks)
- b. Prepare detailed Rate Analysis for RCC slab 12cm thick (1 : 2 : 4) with steel reinforcement. (15 Marks)

### Module-4

- 7 Prepare a detailed estimate with abstract sheet for RCC slab with following details : (20 Marks)  
Refer Fig. Q7.
  - i) Room size : 3.0 × 4.0m (clear)
  - ii) Clear cover (top & bottom) : 20mm
  - iii) Side cover : 50mm
  - iv) Alternate bars are cranked
  - v) Assume Market rates
  - vi) 12Y @ 0.89kg/m and 6Y @ 0.22 kg/m.

Fig. Q7



OR

8 Prepare a detailed estimate of an RCC footing and column. (Refer Fig. Q8).

(20 Marks)

- Earth work excavation and filling
- PCC (1 : 4 : 8)
- CC (1 : 1.5 : 2).
- Shuttering for columns
- Providing and Bar bending steel reinforcement.

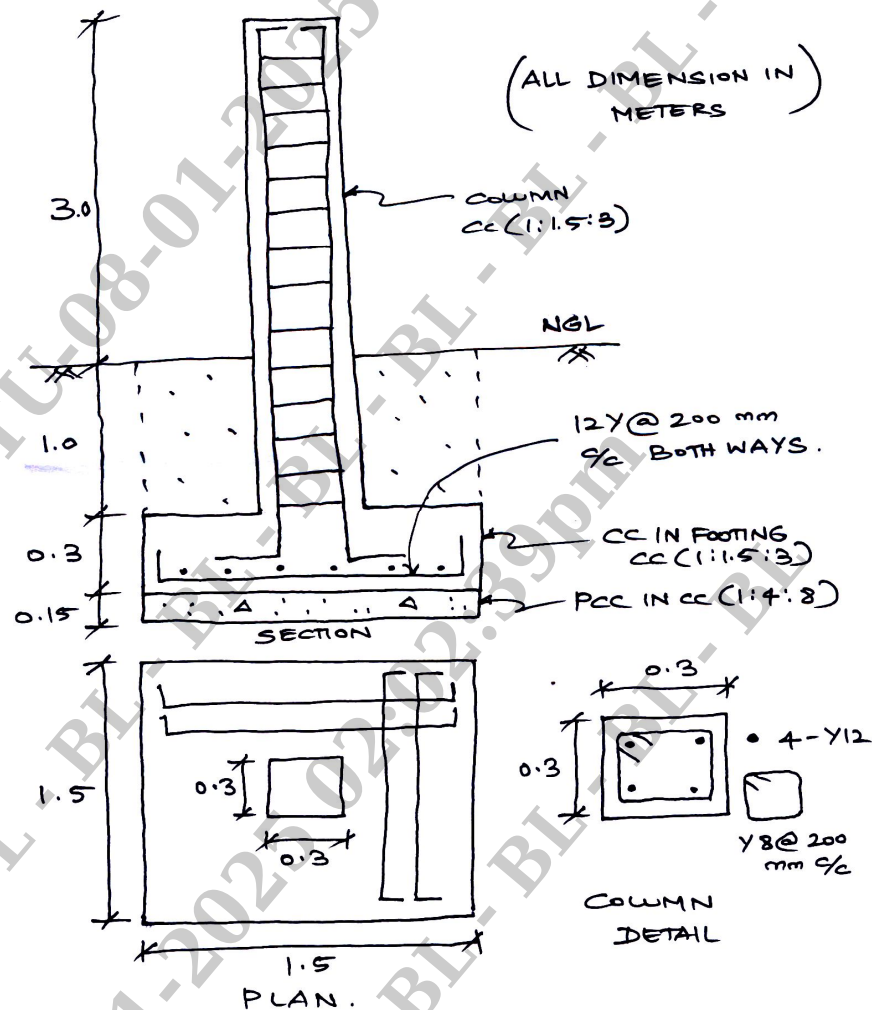


Fig. Q8.

Note : Clear and side cover for footing : 50 mm.

Cover for column : 40 mm.

12Y @ 0.89 kg/m , 8Y @ 0.45 kg/m.

### Module-5

9 Prepare a detailed estimate of a Septic tank. Shown in Fig. Q9.

(20 Marks)

- Earth work excavation
- First class brick work.
- 12mm thick plastering (Inner face).
- CC (1 : 3 : 6) Flooring.

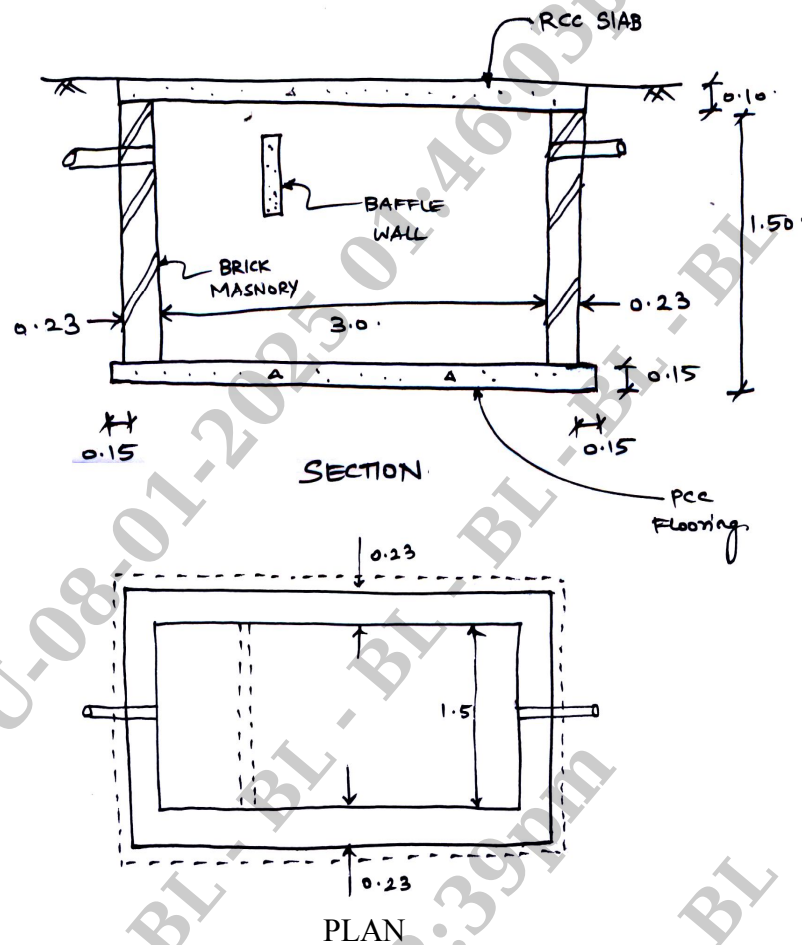


Fig. Q9 (All dimensions in meters unless specified)

OR

- 10 a. Explain the role of Architects in monitoring specification for quality control. (10 Marks)
- b. Write a short note on :
- i) Measurement Book (10 Marks)
- ii) R A Bills. (10 Marks)

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## Eighth Semester B. Arch. Degree Examination, Dec.2024/Jan.2025

### Professional Practice

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

#### Module-1

- 1 a. What are the characteristics of a profession? In what ways is a profession different from a trade or a business? (10 Marks)
- b. What are the different types of architecture firms? Compare between A partnership and a sole proprietorship firms. (10 Marks)

**OR**

- 2 a. Write out the scope of work of an architect with reference to a client and discuss each point briefly. (10 Marks)
- b. Write out various stages of work for a comprehensive service provided by an architect for an individual building, and list out the fees chargeable at each stage. (10 Marks)

#### Module-2

- 3 a. Discuss any 10 points mentioned in the code of conduct for architect as per the council of architecture. (10 Marks)
- b. Discuss the role of the council of architecture for the betterment of the architectural profession. (10 Marks)

**OR**

- 4 a. What are the conditions of the COA for conducting architectural competitions? (10 Marks)
- b. Describe the various types of architectural competitions and their classification (10 Marks)

#### Module-3

- 5 Write short notes on :
  - a. The process of selection of tenderers and the tender award. (10 Marks)
  - b. The role of the architect in the tendering process. (10 Marks)

**OR**

- 6 Write short notes on :
  - a) Earnest money deposit
  - b) Security retention
  - c) Virtual and final completion
  - d) Defects liability period. (20 Marks)

#### Module-4

- 7 Write short notes on :
  - i) Floor Area Ratio      ii) Zoning Regulations      iii) Floating F.A.R      iv) Ground coverage. (10 Marks)

- b. What are the various criteria considered by Govt. Bodies while fixing F.A.R for an Area? (10 Marks)

OR

- 8 a. What are the various methods of dispute resolution, and their advantages and disadvantages? (10 Marks)  
b. Explain in detail the process of arbitration, up to the arbitral award. (10 Marks)

**Module-5**

- 9 a. What is the objective of the land Acquisition Act? (10 Marks)  
b. What is the procedure Laid down for Acquiring Land As Laid Down by the above mentioned Act. (10 Marks)

OR

- 10 a. What is an Easement? Describe any three types of easement rights. (10 Marks)  
b. What role can an architect play in protecting easement right of his client? (10 Marks)

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## Eighth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 Urban Planning

Time: 3 hrs.

Max. Marks:100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 Briefly discuss the evolution of human settlement. (20 Marks)

OR

- 2 Highlight the contribution of Hippodamns on Greek cities with an example. (20 Marks)

### Module-2

- 3 a. Explain the concept of neighborhood as propounded by Clarence Artlur Perry with the help of sketch. (10 Marks)  
b. Discuss in detail the planning principles and concepts of the planner Ebenezer Howard. (10 Marks)

OR

- 4 Briefly explain the planning aspect of :  
a. Model town of Tony Garmier (10 Marks)  
b. Chaudighrah city. (10 Marks)

### Module-3

- 5 a. Define slum and discuss the characteristics of slums. (10 Marks)  
b. List the census classification of Indian cities. (10 Marks)

OR

- 6 Discuss the causes and effects of Urbanisation in detail. (20 Marks)

### Module-4

- 7 Give a brief description on :  
a. Concentric zone theory  
b. Sector theory  
c. Multi nuclei theory. (20 Marks)

OR

- 8 Write short notes on :  
a. Euclidian zoning  
b. Form – based codes. (20 Marks)

### Module-5

- 9 a. Define regional planning and discuss the basic principles of regional planning. (10 Marks)  
b. What is master plan? Highlight the objectives of master plan. (10 Marks)

OR

- 10 a. Explain the steps involved in urban planning. (10 Marks)  
b. Briefly describe URDPFI guidelines. (10 Marks)

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