

B-023

31N0304	Roll No.	31N0304	Total No. of Pages.: 04
	B.Tech III Sem Main/Back Exam 2025-26		
	Civil Engineering		
	(3CE4-04) Architecture Drawing and Building Construction		

Time : 3 Hours

Maximum Marks: 70

Min. Passing Marks:

Instructions to Candidates:

Part-A: Short answer questions (up to 25 words) 10x2 marks = 20 marks. All ten questions are compulsory.

Part- B: Analytical/Problem Solving questions 5x4 marks = 20 marks. Candidates have to answer 5 questions out of 7.

Part – C: Descriptive/Analytical/Problem Solving questions 3x10 marks = 30 marks. Candidates have to answer 3 questions out of 5.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Use of following supporting materials is permitted during examination. (Mentioned in form No. 205)

1. _____

2. _____

P.T.O.

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Part-A

[2x10=20]

- Q.1. What is reduced scale? Explain how can you read scaled drawing. [2]
- Q.2. Write the purpose of submission drawing and working drawing in civil engineering works. [2]
- Q.3. Differentiate between layout plan and location plan. [2]
- Q.4. What are ill effects of dampness? [2]
- Q.5. Name any two causes of failure of foundations. [2]
- Q.6. Define corbel and coping. [2]
- Q.7. Define common rafter. [2]
- Q.8. Give out the ideal direction for the location of Kitchen and Veranda with reasons. [2]
- Q.9. Draw conventional sign of Brick existing and ashlar stone. [2]
- Q.10. Draw mitred closer. [2]

PART-B

[5x4=20]

- Q.1. How can you differentiate between shallow and deep foundation? [4]
- Q.2. Write the precautionary measures to be taken while construction the buildings in earth prone areas. [4]
- Q.3. Explain importance of pile cap and grade beams. [4]

Q.4. Describe the classification of different types of buildings as per National Building Code.

[4]

Q.5. Explain the types of composite floors.

[4]

Q.6. Draw neat sketch of typical section for sun shade with specified minimum dimensions

over window opening. Assume suitable scale.

[4]

Q.7. What is the function of a courtyard in a house? Differentiate set back line and rear back line.

[4]

PART- C

[3x10=30]

Q.1. Explain all the factors that effect the permissible compressive stress and masonry and

explain the terms

i. Column

ii. Concrete masonry unit

iii. Veneered wall.

[7+3=10]

Q.2. Draw to scale the elevation and section of a glazed window for 1200mm high and 2000mm

wide opening in brick wall of 250mm thick. Assume other data.

[10]

Q.3. A house of plinth area is 35 m^2 is to be located in a plot $10\text{m} \times 12\text{m}$. the shorter side is parallel to the road running in east-west direction, with plot on southern side of road, one bedroom, one drawing room, kitchen, bathroom and W.C. is to be Constructed. According to principles of planning draw to a suitable scale following: [10]

- i. Plan of building showing the disposition of rooms.
- ii. Front Elevation

Q.4. What are the objectives, scope and applicability of building by laws? [10]

Q.5. Draw sketches of the two consecutive courses of right angle corner of brick wall $1\frac{1}{2}$ brick thick in English and Flemish bond. [10]