

SE(CIVIL) / Sem III / AP &amp; DB / R20 scheme / 10/06/25.

Time: 3 hours

Max. Marks: 80

Note:

Q1 is compulsory.

Attempt any three out of the remaining four questions.

**Q1. Solve any One out of Two****20 marks each**

- A Draw the Plans of a **Residential Bungalow**, as (G+1) storied RCC Framed structure with following facilities. (Plot size is 50 m. × 40 m.)

- (i) Living Room = 22 Sq.m.
- (ii) Master's Bedroom (with A.T) = 20 Sq.m.
- (iii) Bed Room = 18 Sq.m.
- (iv) Guest Room = 15 Sq.m.
- (v) Kitchen = 15 Sq.m.
- (vi) Drawing Room = 22 Sq.m.

Provide Toilets, Passages as per Bye-laws. Assume Floor to Floor height as 3.0 m.  
Show position of Columns, Doors, Windows & Ventilators in the proposed PLANS.

Draw

- (a) **Ground Floor PLAN (with Walls)**

- 15Marks

- (b) **First Floor LINE PLAN (Single Line)**

-05 Marks

- B Draw the Plans of a **Residential Bungalow**, as (G+1) storied RCC Framed structure with following facilities. (Plot size is 60 m. × 50 m.)

- (vii) Living Room = 24 Sq.m.
- (viii) Master's Bedroom (with A.T) = 22 Sq.m.
- (ix) Bed Room = 16 Sq.m.
- (x) Guest Room = 16 Sq.m.
- (xi) Kitchen = 14 Sq.m.
- (xii) Drawing Room = 20 Sq.m.

Provide Toilets, Passages as per Bye-laws. Assume Floor to Floor height as 3.0 m.  
Show position of Columns, Doors, Windows & Ventilators in the proposed PLANS.

Draw

- (c) **Ground Floor PLAN (with Walls)**

- 15Marks

- (b) **First Floor LINE PLAN (without walls)**

-05 Marks

**Q2. Solve any Two out of Three****10 marks each**

- A Draw the front elevation of the building as designed and drawn in Q.1.
- B Draw the sectional elevation of the building as designed and drawn in Q.1
- C Explain Principles of Planning of residential buildings in detail.

**Q3. Solve any Two out of Three****10 marks each**

- A Draw the site plan of the building as designed and drawn in Q1.
- B Draw the Foundation Plan & section of one footing as designed for building in Q1.
- C Write about the Principles of Planning for School building & Procedure for Planning a small School in a Rural area.

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**Q4. Solve any Two out of Three**

**10 marks each**

- A What are the different types of staircases? Explain all types of staircases in detail along with suitable diagram(s). (with neat sketches)
- B What are the different types of foundations? Explain all with neat sketches.  
Draw the One-point perspective of a clubhouse of size (20 x 12) m. Take floor to floor
- C height as 3 m, plinth height at 450 mm, height of parapet wall at roof level as 1.2 m and height of observer as 1.7 m. Assume all other suitable data, for drawing.

**Q5. Attempt the following**

**10 marks each**

- A Write about the Principles of Planning for Hospital building & Procedure for Planning a small Primary Health Center in a Rural area.
- B Explain about all PITCHED ROOFS with neat sketches.

**Q6. Write Short Notes on any Four out of Six**

**05 marks each**

- A Sun-Path/Wind-Rose diagram
- B Objectives of town planning
- C Rehabilitation of buildings
- D Green building
- E Computer aided drawing

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