

Time: 3hours

Max. Marks: 80

Note: Q1 is compulsory. Attempt any three out of the remaining 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.

- (i) Living Room = 22Sq.m.
- (ii) Master's Bedroom (with A.T) = 20 Sq.m.
- (iii) Bed Room = 15 Sq.m.
- (iv) Guest Room = 15 Sq.m.
- (v) Kitchen = 12 Sq.m.
- (vi) Store Room = 12 Sq.m.
- (vii) Drawing Room = 22 Sq.m.

Provide Toilets, Passages as per Bye-laws. Assume Floor to Floor height as 3.3 m.

Show position of Columns, Doors, Windows & Ventilators in the proposed PLANS.

Draw

- (a) Ground Floor LINE PLAN (with Walls) - 15Marks
- (b) First Floor LINE PLAN (Single Line) -05 Marks

B Draw the Plans of a Residential Bungalow, as RCC_(G+1) Framed structure with following facilities. Floor to Floor height is 3.03m.

- (i) Living-cum-Dining = 24 Sq.m.
- (ii) Master's Bedroom (with A.T) = 20 Sq.m.
- (iii) Bed Room = 15 Sq.m.
- (iv) Kitchen = 12 Sq.m.
- (v) Pooja Room = 10 Sq.m.

Provide Toilets, Passages as per Bye-laws.

Show position of Columns, Doors, Windows & Ventilators in the proposed PLAN.

Draw

- (a) GROUND FLOOR PLAN (with wall thickness) – 15 Marks
- (b) First Floor LINE PLAN (Single Line) --05 Marks

Q2. Solve the following

10 marks each

B Draw the Sectional Elevation of the building as designed and drawn in Q.1. passing through at least one staircase and one sanitary unit.

C Explain all Principles of Town Planning in detail.(with all sketches)

Q3. Solve any Two out of Three

10 marks each

- A Draw the **G.F Plan** of a **PHC**(Primary Health Center) in a Taluka place in your district , with following facilities:(**Floor to Floor Height- 3.6 m.**)
Consultancy Rooms – 2 No.(Each 5x3 m.)
O.T(Operation Theater)- (10mx12m.)
Ward-1 no.(40 Sq..m.)
Pathology & X-Ray = 25 Sq.m.
Doctor's Room-20 Sq.m.
Nurses's Room= 15 Sq.m.
Medical shop= 12 Sq.m.
Provide Toilets, Passages as per Bye-laws.
Show position of Columns, Doors, Windows & Ventilators in the proposed PLAN.

Draw:

Ground Floor Plan (with walls) – 10 Marks

- B Draw the Sectional Elevation for building in Q.No.3-A
C Draw the Front Elevation for building in Q.No.3-A

Q4. Solve the following

10 marks each

- A **Draw the One-Point perspective** of a Small Single House of size (20x 15) m. Take floor to floor height as 3.3 m, plinth height at 600 mm, height of parapet wall at roof level as 1.0 m and height of observer as 1.5 m, above G.L.. Assume suitable station point , provide & draw perspectives for doors, windows, chajjas, steps etc. also.
- B Plan & Design a Dog-Legged Staircase for Floor-Floor height of 3.3 m. (Residential Building)
Assume the data as per bye-laws. (Consider Ground Floor structure only)
Draw Plan &Section of Staircase.

Q5. Solve the following

10 marks each

- A Explain & Draw different types of Staircases used in Residential buildings, with proper Sketches & Diagrams.
B Draw the Front Elevation of the building as designed and drawn in Q.1

Q6. Write Short Notes , with proper explanation on any Four

(4x5=20)

- A Principles of Planning for Residential buildings
B Types of pitched roofs, with sketches
C Types of Doors & Windows for Residential purpose
D Slum Clearance & Re-development of buildings
E Green building
F Computer aided drawing