CE (R-19)   29/11/22

2-30 pm

Sem - III - CBCGS - Reg.

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)

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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