Time: 3 hours   **Max. Marks: 80**

Note:

1. Q1 is compulsory.
2. Attempt any three (03) out of the remaining questions.
3. All questions carry equal marks.
4. Draw neat Sketches/Diagrams, wherever necessary.

Q1.   **Solve the following :**   **20 marks**

Draw the Plans of a Residential Bungalow, as **(G+1) storied RCC Framed** structure with following facilities. (Plot size is 50 mx40 m.)

     (i)   Living _Cum _Dining Room = 24Sq.m.
     (ii)   Master's Bedroom (with A.T) = 22 Sq.m.
     (iii)   Bed Room = 18 Sq.m.
     (iv)   Guest Room = 18 Sq.m.
     (v)   Kitchen = 12 Sq.m.

A   (vi)   Drawing Room = 24 Sq.m.
     (vii)   Puja Room = 10 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 Plan)**   **-05 Marks**

Q2.   **Solve the following :**   **10 marks each**

A   Draw the Front Elevation of the building as designed and drawn in Q.1. (G+1 Storied)

B   Draw the Foundation Plan & Section of one Footing of the building, as designed and drawn in Q.1.

Q3.   **Solve the following :**   **20 Marks**

Draw the **Plans** of a **Small Hospital** in a **District** place in your district , as **(G+1)** storied, with following facilities:(**Floor to Floor Height- 3.6 m.**): **(Plot = 40 m. X 40 m.)**
Consultancy Rooms – 6 No.(Each 15 Sq. m.)
O.T(Operation Theater)- (80 Sq.m)(with A.T)
Ward-2 no._(Each 80 Sq,.m.)
Pathology & X-Ray = 30 Sq.m.
Doctor's Room-20 Sq.m.

A   Nurse's Room = 20 Sq.m
Medical shop= 15 Sq.m.
Provide Toilets, Passages as per Bye-laws.
Show position of Columns, Doors, Windows & Ventilators in the proposed PLAN**.**
All the above facilities on Ground & First Floor only
Draw:

     (i)   **Ground Floor Plan (with walls)**   **– 15 Marks**
     (ii)   **Line Plan of First Floor (Single Line Plan)**   **– 05 Marks**

56101   **Page 1 of 2**

Q4. **Solve the following :**   **10 marks each**

A   **Draw** the **One-Point perspective** of a Small Single House of size (35x 15) m.(Overall Dimensions of Building).
 Take floor to floor height as 3.6 m, Plinth height at 600 mm, height of parapet wall at roof level as 1.0 m and height of observer as 1.6 m, above G.L... Assume all the remaining data.

B   Plan & Design a Dog-Legged Staircase for Floor-Floor height of 3.6 m. (Residential Building)
Draw Plan &Sectional Elevation of Staircase.

Q5. **Answer the Following.**   **(2x10=20)**

 A   Explain & Draw different types of all PITCHED Roofs, with proper Sketches & Diagrams

 B   Explain all types of STAIRCASES used for Residential & Public buildings, with neat sketches.

Q6. **Write Short Notes on any FOUR, with proper sketches.**   **(4x5=20)**
 A   Green building Concept & Built Environment
 B   Computer aided drawing(CAD) concepts & detailed features
 C   Principles of Planning for Residential buildings
 D   Principles of TOWN Planning
 E   All types of Flooring used for Residential & Public buildings

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