

22405

22232

4 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
  - (2) Illustrate your answers with neat sketches wherever necessary.
  - (3) Figures to the right indicate full marks.
  - (4) Assume suitable data, if necessary.
  - (5) Use of Non-programmable Electronic Pocket Calculator is permissible.
  - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

**1. Attempt any THREE of the following :**

**3 × 4 = 12**

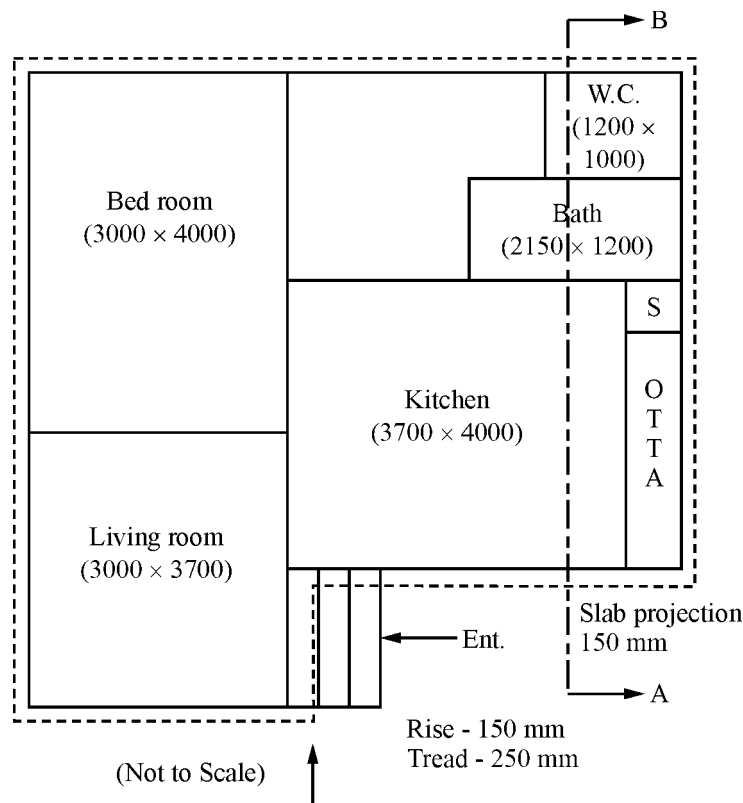
- (a) (i) Draw graphical symbols for
  - (1) Single shutter door
  - (2) Wood
- (ii) Define prospect and grouping in principles of planning.
- (b) Draw neat sketches for following lines :
  - (i) Hidden line
  - (ii) Section line
  - (iii) Long break line
  - (iv) Extension line
- (c) State the purpose of Foundation plan in the working drawing.
- (d) State the purpose of preparing site plan.
- (e) Define the terms :
  - (i) Station point
  - (ii) Vanishing point



2. Draw to a suitable scale the line plan of a bank building with different units. Also, show position of doors, windows and dimensions of each room. 10

3. **Attempt the following :** 12

Fig. No. 1 shows a line plan of residential building. Draw developed plan with suitable scale. Show all dimensions and label the parts.



**Fig. No. 1**

Given data :

- (i) Plinth height 600 mm
- (ii) Superstructure consists of BB masonry with walls 300 mm thick and internal walls bath and W.C. 100 mm thick.
- (iii) Assume Chajja projection 750 mm.
- (iv) Assume suitable data if necessary.

**4. Attempt any TWO of the following :****2 × 6 = 12**

- (a) State the importance of submission drawing and working drawing in civil engineering works.
- (b) Draw detailed section of RCC column footing with following data :
  - (i) Size of footing – 1200 × 1500 mm
  - (ii) Size of column – 230 × 400 mmAssume suitable data if required.
- (c) Draw a longitudinal section of RCC lintel beam of length 1.5 m with suitable scale.

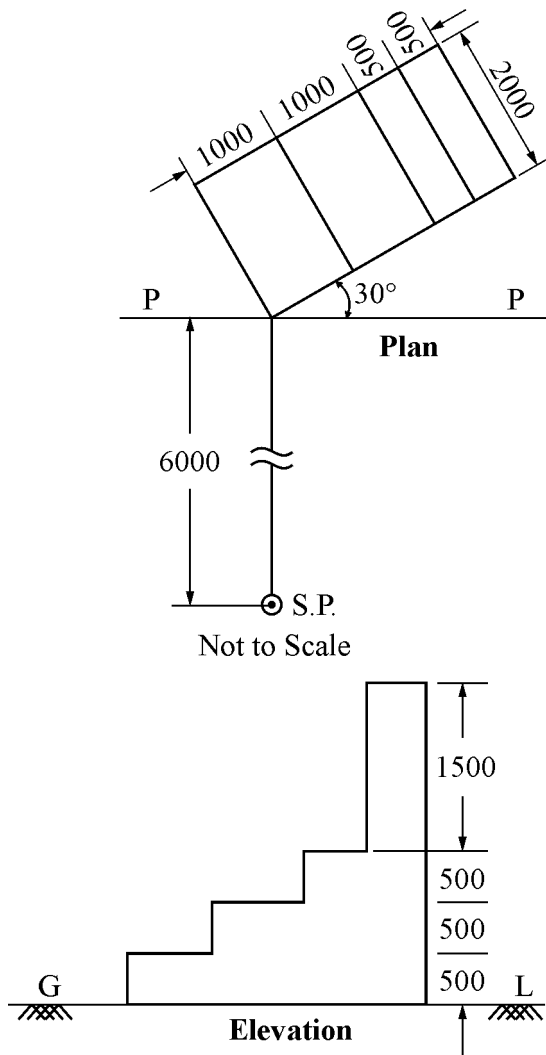
**5. Attempt any TWO of the following :****12**

- (a) Suggest various units required for primary health centres constructed in village.
- (b) Define the following :
  - (i) F.S.I.
  - (ii) Built up area
- (c) Write any four purposes of construction notes and any two purposes of North direction shown in working drawing of the building.

**6. Attempt any ONE of the following :****12**

- (a) Draw a plan and section of single flight of an RCC staircase from the following data :
  - (i) Number of Risers – 10 Nos. of 160 mm height
  - (ii) Number of treads – 9 Nos. of 250 mm width
  - (iii) Width of stair case – 1000 mm
  - (iv) Landing at top is – 1000 × 1000 mm

- (b) A plan and elevation of a structure is shown in Fig. No.2. Draw to scale, two point perspective of the same. Retain all construction lines.



Take observer's eye level at 1.5 m above G.L.

Fig. No. 2