

22405

23124

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.

Marks

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

12

- (a) Draw graphical symbols for,
 - (i) Timber
 - (ii) Steel bar
 - (iii) Bath tub
 - (iv) Revolving door
- (b) Draw the neat sketch for following lines :
 - (i) Break line
 - (ii) Section line
 - (iii) Centre line
 - (iv) Dimension line
- (c) State the importance of site plan and foundation plan in civil engineering drawing.
- (d) What is CAD ? State the application of AutoCAD.
- (e) Describe the principles used in perspective drawing.



2. Draw to suitable scale for the line plan of a post office with different units. Also, show position of door, window and dimensions of each room. 10
3. Fig. No. 1 shows a line plan of Residential building. Draw developed plan with suitable scale. Show all dimensions and label the parts. 12

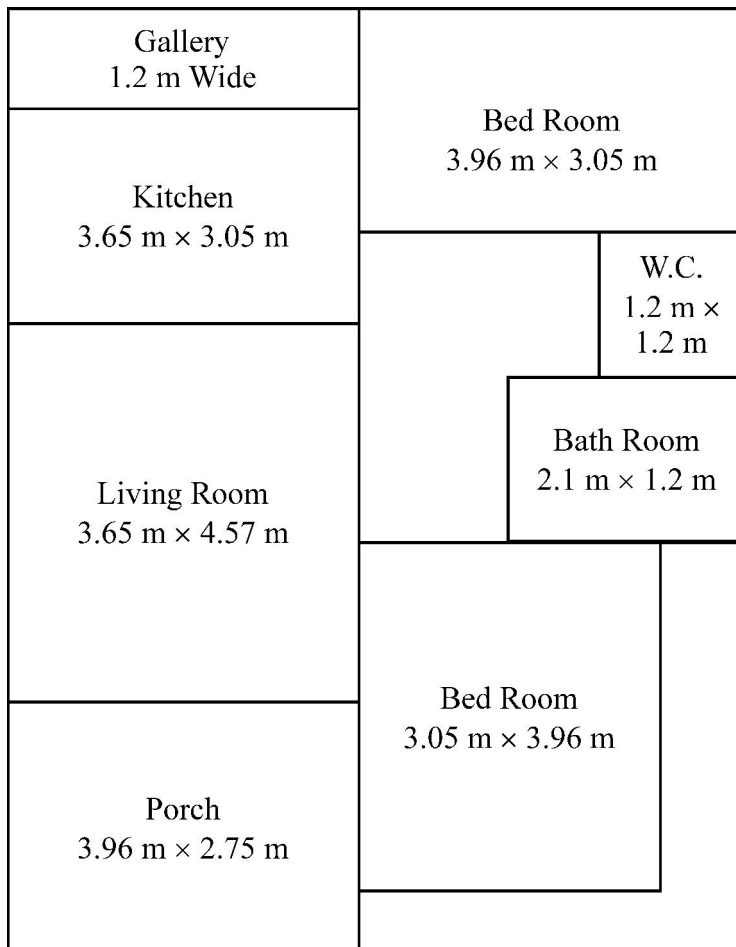


Fig. No. 1

Data :

- (i) Super structure consists of B.B. Masonry with walls 300 mm thick and internal walls for bath & W.C. 150 mm thick.
- (ii) Assume chajja projection 450 mm thick.
- (iii) Plinth height 600 mm
- (iv) Assume suitable data if necessary.

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

- (a) Prepare schedule of opening in the standard format and area of statement for developed plan in Q. No. 3.
- (b) Explain the following principles of planning.
 - (i) Orientation
 - (ii) Roominess
 - (iii) Circulation
- (c) Define :
 - (i) Built-up Area
 - (ii) Carpet Area
 - (iii) F.S.I.

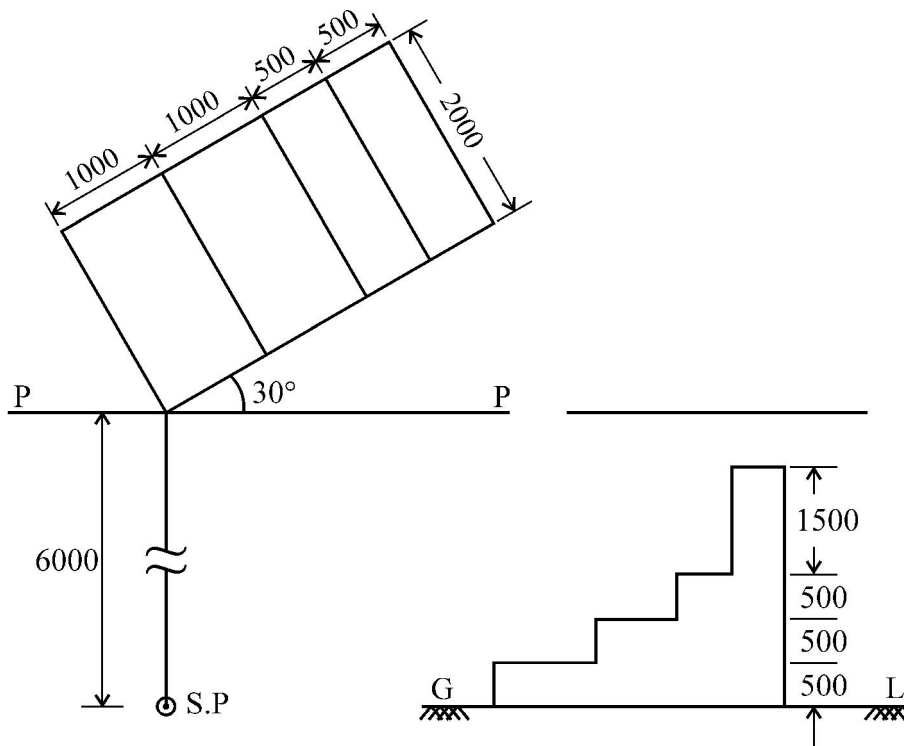
5. Attempt any TWO of the following :**12**

- (a) State importance of rules and byelaws framed by sanctioning authorities for construction in rural area.
- (b) Compare submission drawing and working drawing.
- (c) Draw detailed plan and section of RCC column and column footing with the following data :
 - (i) Size of the column – 300 mm × 300 mm
 - (ii) Size of the footing – 1200 mm × 1200 mm

6. Attempt any ONE of the following :

12

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



Take observer's eye Level

1.5 m above G.L.

Fig. No 2

- (b) Draw a plan and section of single flight of a R.C.C. stair-case from following data :

Number of Risers – 10 Nos. of 150 mm Height

Number of Treads – 9 Nos. of 300 mm width

Width of staircase – 1200 mm

Landing at top is – 1200 × 1200 mm
