17309

11819

4 Hours / 100 Marks Seat No. | | | | | | | | |

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. a) **Attempt any THREE of the following:** **12**

(i) Draw graphical symbols for:

(1) Timber

(2) Concrete

(3) Glass

(4) Stirrups

(ii) Draw any four types of lines used in civil engineering drawing.

(iii) Define the ''Grouping''. How you will use it for residential building?

Marks

(iv) Give the minimum heights for :

(1) Window sill

(2) Plinth

(3) Parapet wall

(4) Head room for staircase.

b) Draw to a suitable scale a line plan of a "canteen" containing various unit such as manager cabin, store, kitchen, cashier, dining, washing, sanitary unit etc. **8**

2. Figure No. 1 shows line plan of a residential building. Draw to a scale of 1 : 50, the following views. Show all dimensions:

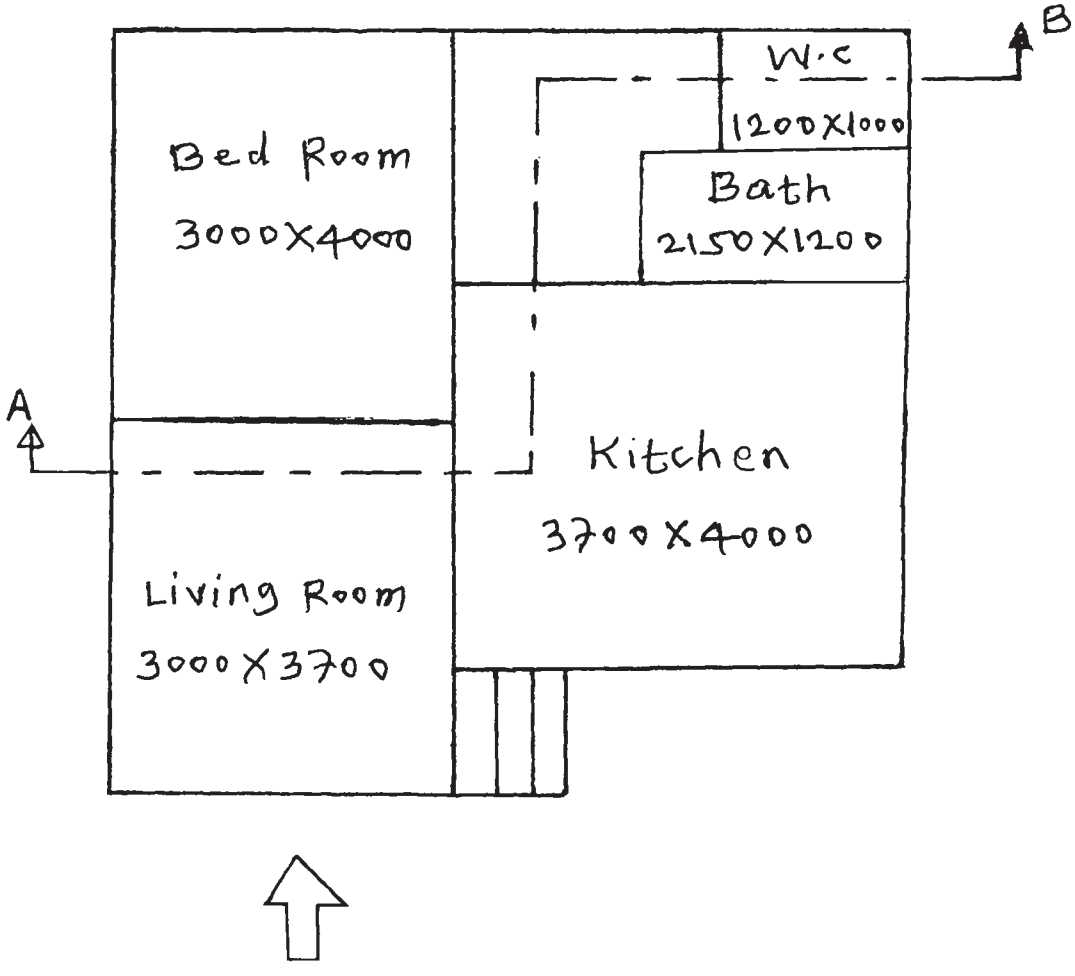

Fig. No. 1

Marks

a) Developed plan **12**

b) Front elevation **8**

c) Section along AB **8**

Use following construction notes.

(i) Hard Strata is available at 900 mm below G.L.

(ii) Concrete bed P.C.C. (1 : 4 : 8) 150 mm thick and 900 mm width.

(iii) Foundation masonry 600 mm in width in C.M. (1 : 6)

(iv) U.C.R. masonry in plinth, width 450 mm and height 600 mm above G.L. in C.M (1 : 6)

(v) Super structure consists of B.B. masonry in C.M. (1 : 6) 300 mm thick main walls and 200 mm thick partition walls of sanitary block.

(vi) Ceiling height is 3000 mm

(vii) R.C.C. slab (1 : 2 : 4) thickness 120 mm

(viii) Dado upto 1200 mm height is provided with glazed tiles for bath and W.C. walls.

3. Attempt any <u>THREE</u> of the following: **24**

a) Prepare schedule of openings and area statement for the building shown in Figure No. 1 Q. No. 2.

b) State the importance of site plan and location plan in civil engineering drawing.

c) Draw to a suitable scale foundation plan for the building shown in Figure No. 1 of Q. No. 2.

d) Draw a neat labelled section of a typical RCC Chajja.

Marks

4. Attempt any TWO of the following: **16**

a) Define:

(i) Plot area

(ii) Carpet area

(iii) Plinth area

(iv) Floor area

b) Suggest the various units and their sizes for general post office building.

c) Define 'Privacy'. State its types and state methods of achieving 'Privacy' during planning of a building.

5. Figure No. 2 shows a plan and elevation of small object. **12**
Draw the two point perspective view of the object to suitable scale taking S.P. at a distance 3 m along the central visual ray. Assume eye level is at 1.5 m above the G.L. The base block of pillar makes an angle of 30° with the P. P. and touches the same at A.

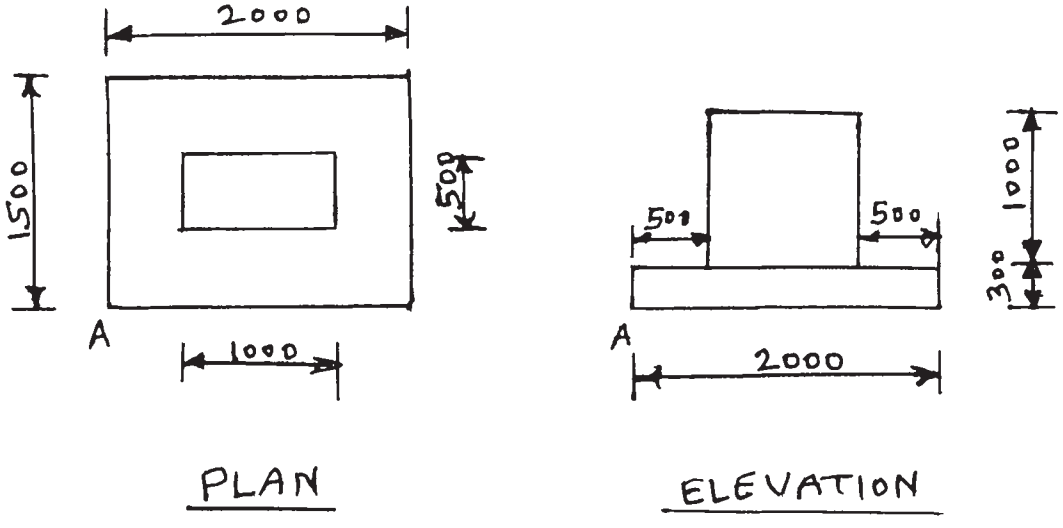

Fig. No. 2

OR

Marks

Draw the two point perspective view of a small monumental object shown in Figure No. 3. Retain all construction lines. Assume eye level is at 2.0 m above the G.L.

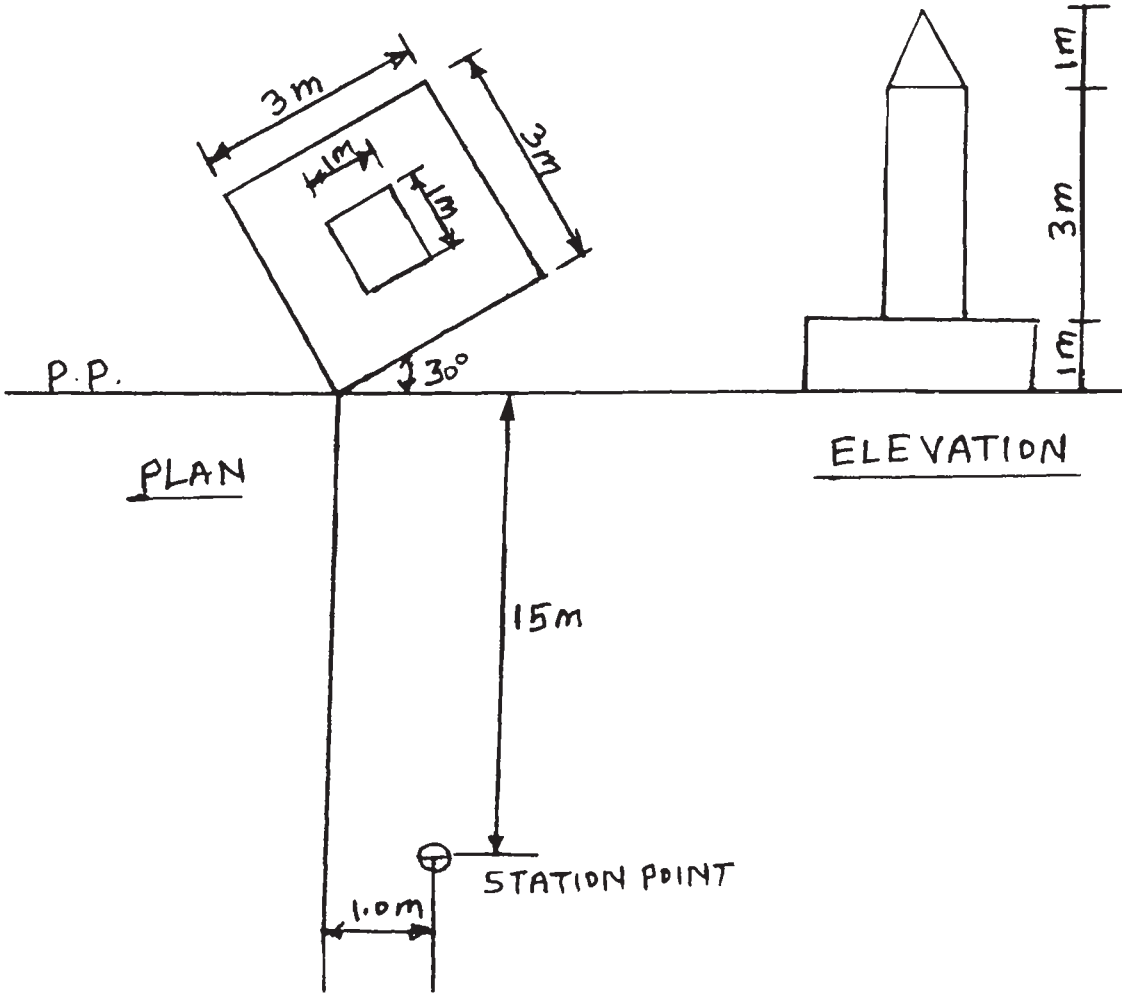

Fig. No. 3