

22405

21222

4 Hours / 70 Marks

Seat No.

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15 minutes extra for each hour

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

Marks

1. Attempt any THREE of the following :

12

- (a) (i) Draw graphical symbols for
(1) Stone Masonry (2) Timber
- (ii) State minimum dimensions required for the following in residential buildings :
(1) Rise (2) Tread
- (b) (i) Draw neat sketches for the following lines :
(1) Section Line (2) Hidden Line
- (ii) Mention the standard sizes of following papers :
(1) A4 (2) A3
- (c) State different types of data drawings for a load bearing residential buildings.
- (d) State the importance of site plan & foundation plan in submission drawings (at least 4 points).
- (e) Define the terms :
(1) Vanishing Point (2) Centre of vision

2. Draw a line plan of school building (upto VIIth std) for a single division of 40 students. Show different units with their sizes and amenities in school.

(min three – play ground, drinking water, washrooms)

10

3. Fig.-1 shows a line plan of load bearing residential building. Draw developed plan with suitable scale. Show all dimensions and label the parts.

12

Data :

- (1) Plinth height 0.75 m
- (2) Assume chajja projection 450 mm.
- (3) Wall thickness 300 mm for external and 230 mm for internal walls.
- (4) Assume suitable data if required.

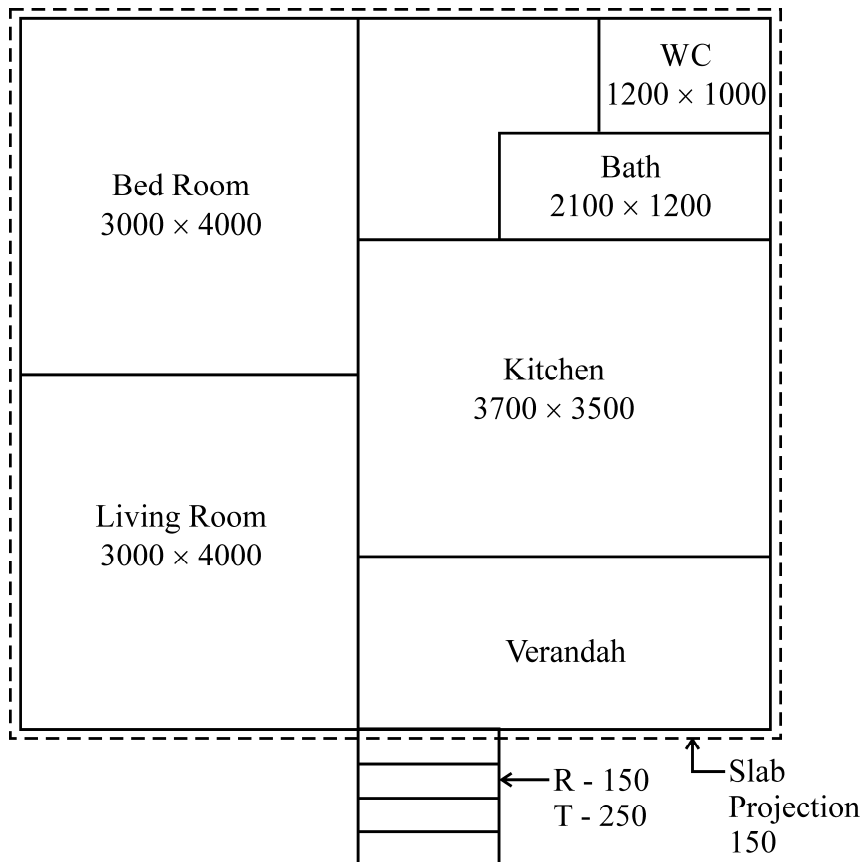


Fig.-1

4. Attempt any TWO of the following :

12

- (a) Draw foundation plan for a framed structure as shown in fig.-2. Show all dimensions.

Data :

- (i) Wall thickness 230 mm external & 100 mm internal
- (ii) Size of column 230 mm \times 300 mm
- (iii) Size of column footing 1200 mm \times 1500 mm
- (iv) Size of reference pillar (R.P.) 300 \times 300 mm
- (v) Distance of R.P. 1.5 m from column center.

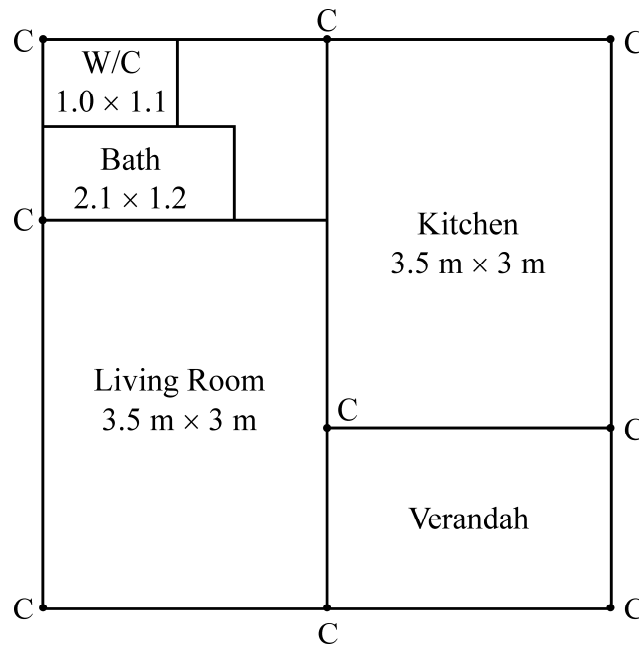


Fig.-2

- (b) Draw a neat sketch showing RCC components of lintel with chajja projection of 450 mm. Use 1 : 20 scale.
- (c) Draw detailed plan and section of R.C.C. column footing with following data :
 - (i) Size of footing 1200 mm \times 1200 mm
 - (ii) Size of column 230 mm \times 300 mm

P.T.O.

5. Attempt any TWO of the following :

12

- (a) Define :
- Carpet Area
 - Built up Area
 - Plinth Area
- (b) List the drawings and documents to be submitted for getting approval from Sanctioning Authority.
- (c) Prepare schedule of opening and area statement for a building shown in fig.-1 of Q. no. 3.

6. Attempt any ONE of the following :

12

- (a) Draw to a suitable scale two points perspective drawing for steps shown in fig.-3. Assume eye level at 1.5 m. above ground level and station point at 3.0 m from picture plane along Central Visual Ray. Retain all construction lines. Assume suitable data if required.

All dimensions are in mm.

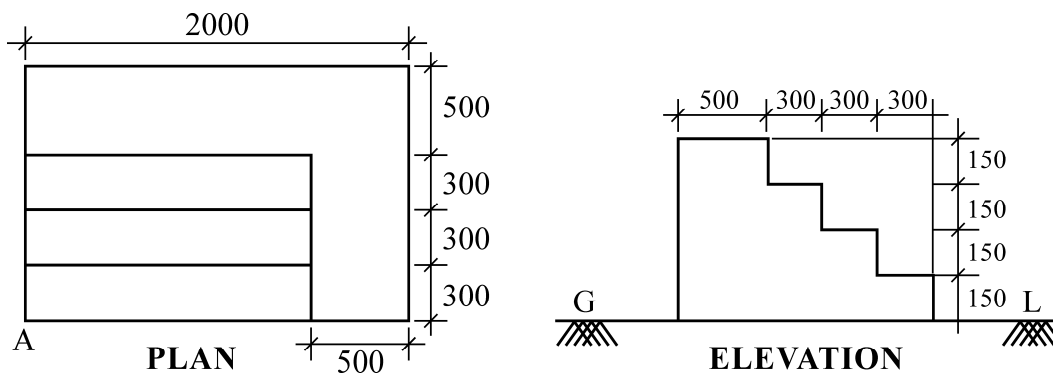


Fig.-3

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

Number Risers – 10 of 150 mm height

Number of Trades – 09 of 300 mm width

Width of staircase is 1200 mm

Landing at top is 1200 × 1200 mm.