

Seat  
No.

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BAI1312

## Building Design & Drawing (New) (1090)

P. Pages : 4

Time : Four Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Answers to Q.1 and Q.2 should be written on ruled answer book and Q.3 and Q.4 on drawing sheet.
6. Figures to the right indicate full marks.
7. Assume suitable data if necessary.

### UNIT - I

1. Attempt **any two** :

- a) Explain with sketches : 10
  - i) Aspect
  - ii) Prospect.
- b) Explain the terms : 10
  - i) F.S.I.
  - ii) Building control line.
- c) Define and explain. 10
  - i) Fire load
  - ii) Air conditioning system.

### UNIT - II

2. Attempt **any two** :

- a) Explain thermal insulation of the building. 10
- b) Distinguish between one pipe and two pipe systems of plumbing. 10
- c) Differentiate between sound insulation and acoustics. 10

## UNIT - III

3. a) A line plan of a residential building is given in Fig. 1 which is proposed on a plot size 15.3 x 17.70 m. The main road is 10m wide on the west of the plot. The other requirements of building are as follows :-
- Floor to floor height = 3.30 m.
  - The building is load bearing wall type single storey with wall thickness 200 mm.
  - Brick masonry in foundation and plinth & superstructure.
  - R.C.C. slab roof 120 mm thick.
  - Hard murum is at 1.0 m depth below G.L.
- Draw to a scale of 1:100 assuming any other data.

- |                        |    |
|------------------------|----|
| a) Detailed Plan.      | 10 |
| b) Front Elevation.    | 5  |
| c) Section along 'AA'. | 10 |
| d) Site Plan.          | 5  |

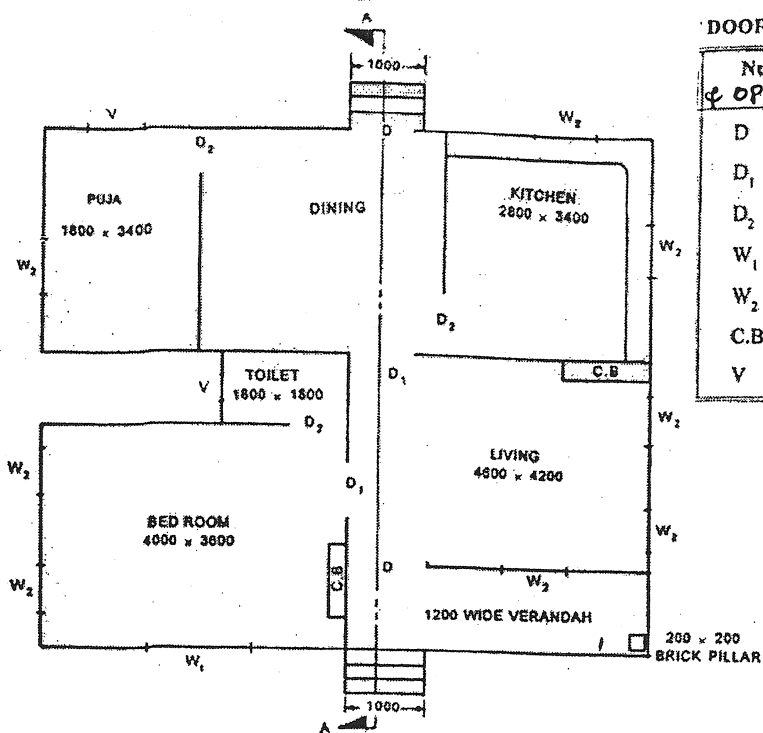


Fig. 1, LINE DIAGRAM

## DOORS, WINDOWS, VENTILATORS AND CUP BOARDS.

Numbering & OPENING	Modular size in mm	Specifications
D = 2 No	1000 x 2100	Fully panelled
D <sub>1</sub> = 2 No	1000 x 2100	Flushed door
D <sub>2</sub> = 3 No	900 x 1800	Flushed door
W <sub>1</sub> = 1 No	1500 x 1200	Glazed window
W <sub>2</sub> = 7 No	1000 x 1200	Glazed window
C.B. = 2 No	1500 x 1800	Flushed shutters
V = 3 No	1000 x 600	Glazed ventilator.

## UNIT - IV

4. a) Draw line plan of a library building proposed in a Engineering college, assume suitable scale.

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Requirements are :

- i) Assume suitable area for planning consider 3 sqm area per students.
- ii) Librarian's room 3m x 3m.
- iii) Office 4m x 3m.
- iv) Books section 4m x 5m.
- v) Reference Books section 4m x 5m.
- vi) Magazine, Journals, News papers section.
- vii) Reading Hall 7m x 8m.
- viii) Sanitary block.

- b) Draw line plan of a Post Office for a village of population 5000, to a suitable scale and size of rooms.

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Requirements are :

- i) Counter & Public space for circulation (min 3m wide).
- ii) Working space behind counter (min 35m wide).
- iii) Post masters room (14m<sup>2</sup>).
- iv) Sorting room (14m<sup>2</sup>).
- v) Postmen room (14m<sup>2</sup>).
- vi) Sanitary facilities.

- c) Fig. 2 shows a plan of entrance steps. One side of which is inclined at an angle of  $30^\circ$  to the picture plane, and touches the same at 'A'. The observer is standing at a distance of 2m along the central visual ray. Assuming Eye level at 1.5m above G.L., Draw the two point perspective view to a scale of 1:20. Retain all construction lines.

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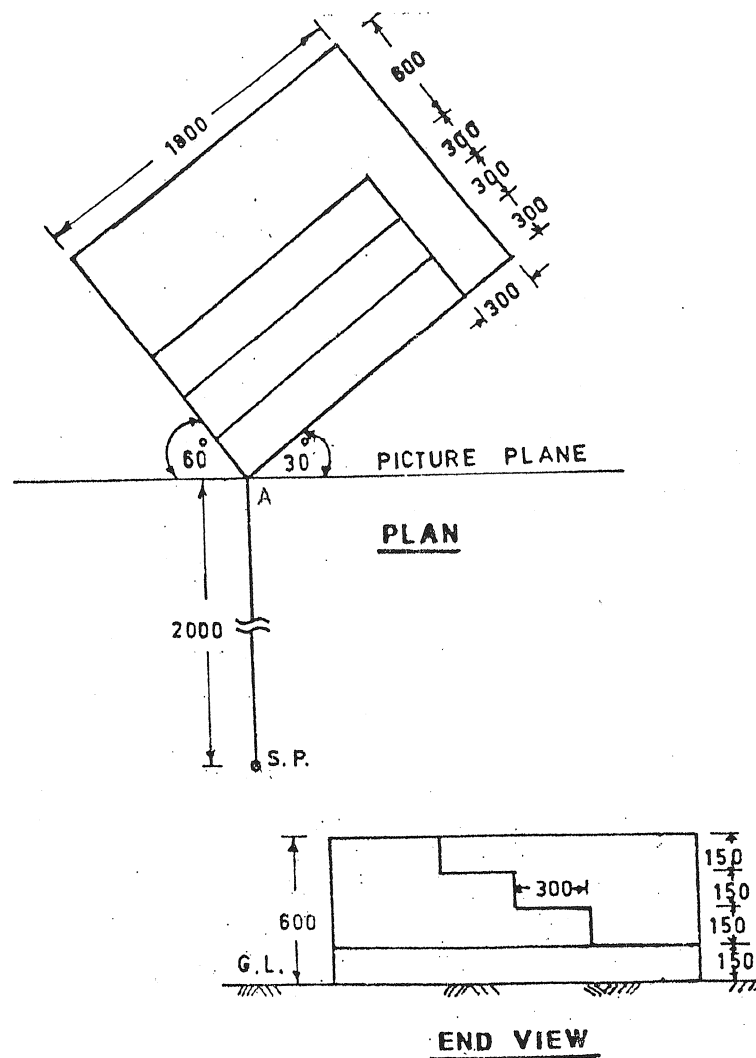


Fig. 2, Q. 4 (c)

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