

Total No. of Questions—12]

[Total No. of Printed Pages—4+2

[3862]-107

S.E. (Civil) (Second Semester) EXAMINATION, 2010

BUILDING PLANNING

(2008 COURSE)

Time : Four Hours

Maximum Marks : 100

- N.B. :—** (i) Solve Q. 1 or Q. 2, Q. 3 or Q. 4, Q. 5 or Q. 6 from Section I and Q. 7 or Q. 8, Q. 9 or Q. 10, Q. 11 or Q. 12 from Section II.
- (ii) Use separately answer-sheet for Section I and Drawing Sheet for Section II.
- (iii) Figures to the right indicate full marks.
- (vi) Assume suitable data, if necessary.

SECTION I

1. (a) Write a short note on services and amenities in the town. [6]
- (b) Explain the role of plan sanctioning authority for townships. [6]
- (c) Write short notes on eco-friendly and cost effective buildings. [6]

Or

2. (a) Write a short note on 7/12 abstract, giving meaning of each term. [6]

P.T.O.

- (b) Write a short note on benefits of "Green Buildings". [6]
- (c) Explain how architectural planning principles help architectural composition. [6]

3. (a) What is F.A.R. ? What are the areas exempted while calculating F.A.R. ? [6]
- (b) Give the definitions of the following :
- (i) Building height
- (ii) Development. [4]
- (c) Write short notes on :
- (i) Natural Ventilation
- (ii) Artificial Lighting. [6]

Or

4. (a) State the byelaws regarding road width and height of the building. [6]
- (b) The internal dimensions of a factory building are 40 m × 25 m × 12 m. The number of air changes required per hour are three. The difference between indoor and outdoor temperature is 8°C. Find the area of openings required if the distance between inlet and outlet openings is 8 m. [6]
- (c) Explain the importance of daylighting and the factors influencing the daylighting. [4]

5. (a) Explain in detail any *two* constructional measures for noise control. [6]
- (b) What is fire hazard ? Explain the means of fire control. [6]
- (c) Explain two-pipe plumbing system. [4]

Or

6. (a) What are different acoustical defects ? Explain any *one* in detail. [6]
- (b) Explain the following terms :
- (i) Fire load
 - (ii) Evacuation time
 - (iii) Travel distance. [6]
- (c) What factors affect designing and planning of electrical services ? [4]

SECTION II

7. Draw plan and elevation of a twin bungalow. The plot size is 300 m^2 and maximum F.S.I. is 0.8. Road of 8 m width is on the East side of the plot. Structure is R.C.C. and G + 1. Ext. wall thickness is 230 mm and internal 150 mm. [20]

Or

8. Draw plan and elevation of a twin bungalow. The plot size is 300 m^2 and maximum F.S.I. is 1.0. Road of 8 m width is on the North side of the plot. Structure is load bearing and $G + 1$. Ext. wall thickness is 300 mm and internal 230 mm. [20]
9. Draw the sketches for the following symbols :
- (i) Timber
 - (ii) VCR Masonry
 - (iii) Wash basin
 - (iv) Rolled shape-I section
 - (v) Revolving door. [10]

Or

10. Draw to a scale 1 : 100 or suitable, a two point perspective view of an object shown in Fig. 1. Assume eye level 1.8 m above GL. [10]

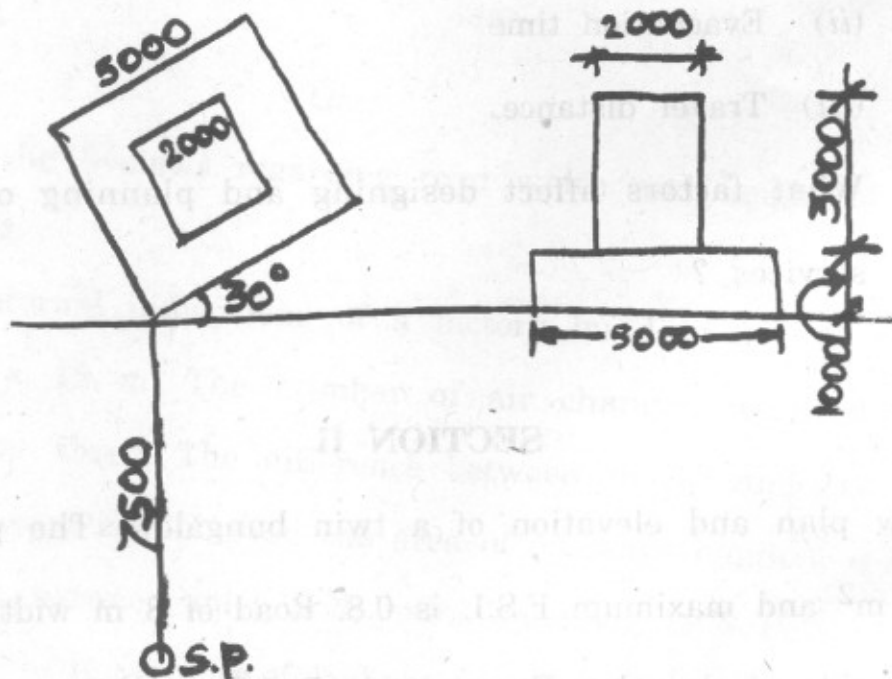


Fig. 1

All dimensions are in mm.

11. It is proposed to construct a PWD Executive Engineer's office with the following data :

- | | |
|-------------------------------------|---------------------|
| (1) Entrance + Waiting | — 12 m ² |
| (2) Administrative office | — 15 m ² |
| (3) E.E. office (attached toilet) | — 18 m ² |
| (4) Technical Session | — 15 m ² |
| (5) Record room | — 9 m ² |
| (6) PA to Executive | — 9 m ² |
| (7) Sanitary block (Ladies & Gents) | — Suitable |
| (8) Passage | — 1.5 m wide |

Draw to a scale of 1 : 50 or suitable :

- | | |
|--|------|
| (i) Line plan showing locations of doors, windows. | [10] |
| (ii) Schedule of openings. | [5] |
| (iii) Suggest suitable flooring for different areas. | [5] |

Or

12. Design a single storeyed Restaurant building on a highway. The following units are to be provided :

- | | |
|-----------------------------|----------------------|
| (i) Entrance + General Shop | — 45 m ² |
| (ii) Dining Hall | — 300 m ² |
| (iii) Service | — 35 m ² |
| (iv) Kitchen | — 45 m ² |
| (v) Store room | — 20 m ² |

- (vi) Cloak room — 15 m²
- (vii) Sanitary block for Ladies
and Gents (separate) — Suitable
- (viii) Passage — 1.5 m wide

Draw to a scale of 1 : 50 or suitable :

- (a) Line plan showing locations of doors and windows. [10]
- (b) Schedule of openings. [4]
- (c) Furniture arrangement in the dining area. [6]