

Total No. of Questions—8]

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**[4857]-1007**

**S.E. (Civil) (Second Semester) EXAMINATION, 2015**  
**ARCHITECTURAL PLANNING AND DESIGN OF BUILDINGS**  
**(2012 PATTERN)**

**Time : Two Hours**

**Maximum Marks : 50**

- N.B. :—** (i) Solve Q. No. 1 or Q. No. 2, Q. No. 3, or Q. No. 4 in the answer-book.
- (ii) Solve Q. No. 5 or Q. No. 6, Q. No. 7 or Q. No. 8 on the drawing sheet only.
- (iii) Figures to the right indicate full marks.
- (iv) Assume suitable data, if required.

1. (a) Explain the role of plan sanctioning authority for Co-op Housing Societies and Apartment. [7]
- (b) Write short notes on :
- (i) Submission drawings
- (ii) Working drawings. [6]

*Or*

2. (a) What is the importance of safety, amenities and services for town planning ? [6]
- (b) Explain the various safety aspects in detail. [7]
3. (a) Why is the ventilation necessary ? Also explain various objectives of ventilation. [6]

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(b) Explain various rules for lighting, drainage and sanitation as per building rules and byelaws. [6]

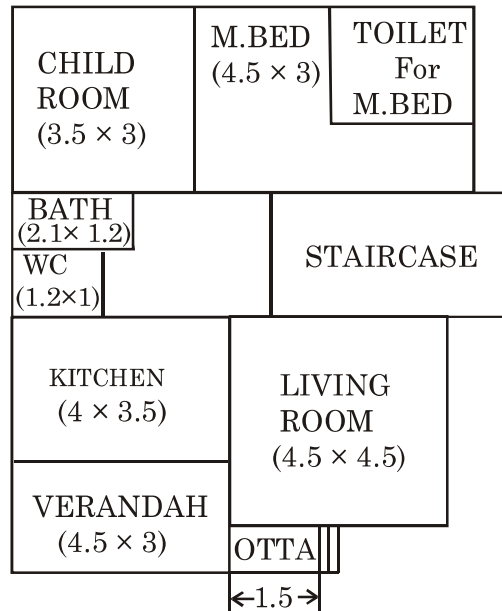
Or

4. (a) Explain the important aspects of Noise and Acoustics. [6]

(b) Distinguish between isometric and perceptive views. [6]

5. A line plan for a residential building is shown in following figure. Draw detailed floor plan with 1 : 50 or suitable. Use the following data : [13]

- (a) All external walls are of 230 mm thick
- (b) All partition walls are of 150 mm thick
- (c) RCC frame structure
- (d) Beam sizes =  $0.23 \times 0.5$
- (e) Column sizes =  $0.23 \times 0.5$
- (f) Floor to floor height = 3.2
- (g) Plinth height = 0.6
- (h) Toilet for M.Bed =  $1.2 \times 2.1$
- (i) All dimensions are in meters.



*Or*

6. It is proposed to construct a bungalow for a doctor, the following are the requirements for accommodation : [13]

- (i) A drawing hall–25 m<sup>2</sup>
- (ii) Living room–25 m<sup>2</sup>
- (iii) Kitchen-cum-dining room–15 m<sup>2</sup>
- (iv) Guest bedroom–20 m<sup>2</sup>
- (v) Children's room–20 m<sup>2</sup>
- (vi) Master bedroom–20 m<sup>2</sup>
- (vii) Doctor's room–20 m<sup>2</sup>

Provide adequate verandahs, passages, sanitary units, staircase etc. as per bye-laws. The structure may be planned as G+1 RCC framed structure. Draw detailed ground floor plan.

7. It is proposed to construct a PWD Executive Engineer's office with the following data : [12]

- (1) Entrance + Waiting–12 m<sup>2</sup>
- (2) Administrative office–15 m<sup>2</sup>
- (3) E.E. office (attached toilet)–18 m<sup>2</sup>
- (4) Technical session–15 m<sup>2</sup>
- (5) Record room–9 m<sup>2</sup>
- (6) PA to Executive–9 m<sup>2</sup>
- (7) Sanitary block (Ladies and 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 [2]

*Or*

8. It is proposed to construct a single-storeyed shopping complex with the following data : [12]

- (1) Entrance : of suitable size
- (2) Big shops : 6 nos., 30 m<sup>2</sup> each
- (3) Small shops : 10 nos., 20 m<sup>2</sup> each
- (4) Telephone booths : 4 nos. of suitable size
- (5) Separate sanitary blocks for ladies and gents
- (6) Staircase for future expansion
- (7) All passages 2.5 m wide
- (8) RCC framed structure
- (9) Assume additional data if necessary :

Draw to a scale of 1 : 50 or suitable, line plan with north line.