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**[5459]-105**

**S.E. (Civil) (Sem. II) EXAMINATION, 2018**  
**ARCHITECTURAL PLANNING AND DESIGN OF BUILDINGS**  
**(2015 PATTERN)**

**Time : Two Hours**

**Maximum Marks : 50**

**N.B. :—** (i) Assume suitable data, if required.

(ii) Figures to the right indicate full marks.

(iii) Solve Q. No. 1 or Q. No. 2, Q. No. 3 or Q. No. 4 in the answer-book.

(iv) Solve Q. No. 5 or Q. No. 6, Q. No. 7 or Q. No. 8 on Drawing Sheet only.

1. (A) What are the objectives of Development Plan ? How are these achieved ? [7]
- (B) Write short notes on : [6]
- (i) Sun path
- (ii) Wind diagram.

*Or*

2. (A) Write a short note on "TDR and its utility". [6]
- (B) Explain various Safety Aspects for Fire in detail. [7]
3. (A) Distinguish between One Point and Two Point Perceptive (sketch for both considering single object is expected). [6]
- (B) Write a note on RWH and its importance. [6]

P.T.O.

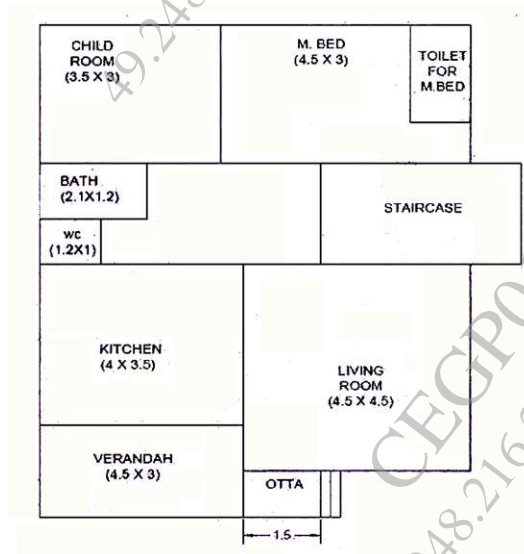
Or

4. (A) Explain the importance of marginal distances and rules for ventilation. [6]
- (B) Write notes on artificial lighting and acoustical defects. [6]
5. A line plan for a residential building is shown in the following Fig. Draw detailed floor plan with 1 : 50 or suitable. [13]

Use the following data :

- (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 m × 0.38 m.
- (e) Column sizes = 0.23 m × 0.38 m.
- (f) Floor to floor height = 3.2 m.
- (g) Plinth height = 0.48 m.
- (h) Toilet for M. Bed = 1.2 × 2.1.

All dimensions are in meters.



Or

6. It is proposed to construct a bungalow for a Dean of Medical College. The following are the requirements for accommodation : [13]

- (i) A drawing hall – 20 m<sup>2</sup>
- (ii) Living room – 30 m<sup>2</sup>
- (iii) Kitchen cum dining room – 20 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>

Provide adequate verandahs, passages, sanitary units, staircase etc. The structure may be planned as G + 1 RCC framed structure. Draw detailed “**ground floor plan**” and give schedule of openings and minimum three construction notes. [13]

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

- (1) Entrance + Waiting : 15 m<sup>2</sup>
- (2) Administrative office : 18 m<sup>2</sup>
- (3) E.E. office (with attached toilet) : 18 m<sup>2</sup>
- (4) Technical Session : 15 m<sup>2</sup>
- (5) Record room : 12 m<sup>2</sup>
- (6) PA to Executive : 12 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 marks)
- (ii) Schedule of openings. (2 marks)

Or

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

- (1) Entrance : 60 m<sup>2</sup>
- (2) Big shops : 8 nos., 30 m<sup>2</sup> each.
- (3) Small shops : 12 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.