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**S.E. (Civil) (II Sem.) EXAMINATION, 2018**  
**ARCHITECTURAL PLANNING & DESIGN OF BUILDING**  
**(2012 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 and Q. No. 3 or Q. No. 4 in answer-book.
  - (iv) Solve Q. No. 5 or Q. No. 6, Q. No. 7 or Q. No. 8 on Drawing Sheet only.

- Q 1 A) Enlist the documents to be submitted for seeking Commencement Certificate and list out the terms on 7/ 12 abstract. (7)
- B) Explain the following principles of architectural planning with suitable sketches : i) Privacy, ii) Roominess (6)

OR

- Q2 A) Elaborate the term, 'Land use zoning' & mention the requirements of each of them. (Minimum 4 zones) (6)
- B) Elaborate need for earthquake resistant structures in relation with loss of human life; property and infrastructure. (7)
- Q3 A) The internal dimensions of a factory building are 30 m x 20 m x 10 m. The number of air changes required per hour are 6, the indoor temperature is 36°C and outdoor temperature is 30°C. Find the area of openings required, if the distance between the inlet and outlet openings is 6 m. (6)
- B) Differentiate between building line & control line by drawing a suitable sketch. (6)

P.T.O.

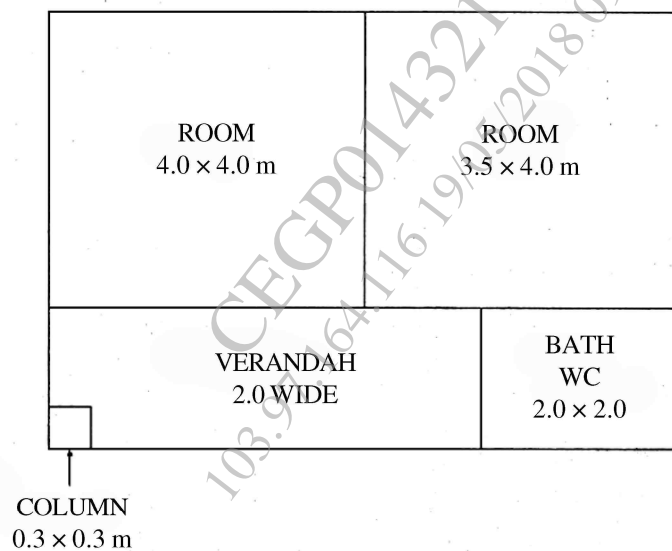
OR

Q4 A) What are Acoustic Defects? Explain the need of rectifying the same in relation with auditorium. (6)

B) Explain the following terms: (6)

i) SP ii) VPL iii) PP

Q 5 Draw a detailed Floor Plan to a scale of 1:50 OR otherwise, of a residential building for the given line plan below. Use following data: RCC framed structure, Wall thickness: 150 mm, Single storey building, Plinth height 450 mm, All dimensions in the sketch are in m. Indicate suitable locations & sizes of doors, windows in schedule of openings. (13)



OR

Q 6 Draw a detailed Floor Plan to a scale of 1:50 with following data: (13)

i) Living room 1 no. approx. area 15 m<sup>2</sup>

ii) Kitchen cum Dining 1 no. approx. area 15 m<sup>2</sup>

iii) Bed rooms 2 no. approx. area 12 m<sup>2</sup> each

- iv) Floor to floor height 3.0 m
- v) R. C. C. structure
- vi) Plinth in UCR masonry
- vii) Varandah, Passage, Staircase, W.C. and Bath / attached toilet etc. of suitable sizes should be provided. Indicate the North line.

Q 7 Design a single storey hostel building for girls and draw only the Line Plan with following data: (12)

- i) Number of girls to be accommodated : 75
- ii) Thirty rooms are two seated with 7.5 sq m area per student and fifteen single seated with 9.5 sq m area.
- iii) Recreation room approx. area 40 m<sup>2</sup>
- iv) Gymnasium approx. area 25 m<sup>2</sup>
- v) Office space approx. area 12 m<sup>2</sup>
- vi) Store room approx. area 15 m<sup>2</sup>
- vii) Varandah, Passage, Staircase, W.C. and Bath etc. of appropriate dimensions should be provided.

Show North direction and mention scale.

OR

Q8 Draw a line plan of a Post Office using following data. (12)

- Entrance and moving space : 30 m<sup>2</sup> with seating arrangement
- Public dealing counters : 6 in no with 0.5 m width
- Post master's room : 15 m<sup>2</sup>

Working area for other staff : 30 m<sup>2</sup>

Post separation room : 30 m<sup>2</sup>

Safe custody area for cash : 10 m<sup>2</sup>

Cash transaction room : 12 m<sup>2</sup>

Speed Post Delivery Section : 12 m<sup>2</sup>

Water room and Toilet (separate for male and female) : 7.5 m<sup>2</sup>