

Total No. of Questions—8]

[Total No. of Printed Pages—4

Seat No.	
-------------	--

[5668]-107

S.E. (Civil Engineering) (Second Semester) EXAMINATION, 2019

ARCHITECTURAL PLANNING AND DESIGN OF BUILDINGS

(2015 PATTERN)

Time : Two Hours

Maximum Marks : 50

N.B. :— (i) Attempt question Nos. 1 or 2, 3 or 4, 5 or 6, 7 or 8.

(ii) Figures to the right indicate full marks.

(iii) Draw neat figures wherever necessary.

1. (a) Enlist the documents to be submitted for seeking commencement certificate and occupancy certificate. [6]

(b) Explain the following planning considerations while designing Green building : [6]

(i) Site selection

(ii) Orientation

(iii) Sun path.

Or

2. (a) Explain the various rating systems related to Green building. [6]

(b) Explain the role of plan sanctioning authority. [6]

P.T.O.

3. (a) Define the following terms : [6]

(i) Picture Plane

(ii) Vanishing Point

(iii) Building Line

(b) Explain with neat sketch 'Mechanical Ventilation System'. [6]

Or

4. (a) Write short notes on : [6]

(i) Reverberation and Sabine's expression

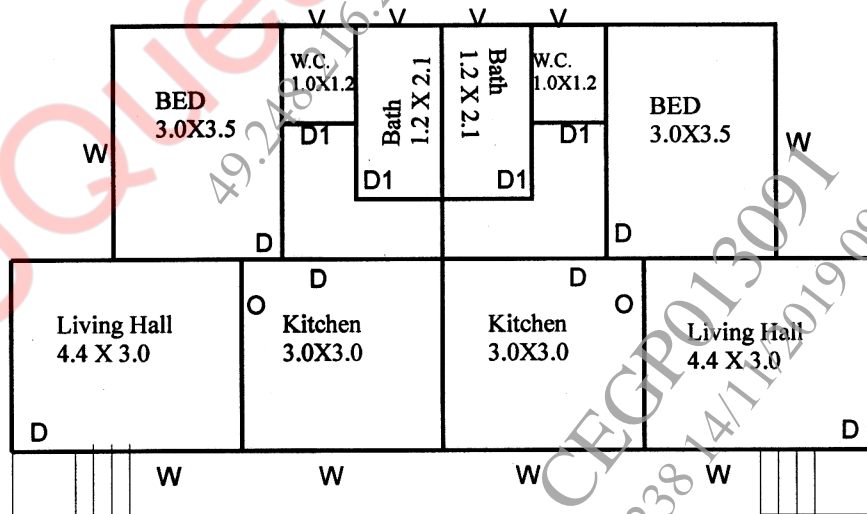
(ii) Formation of Echoes.

(b) Differentiate between Working Drawing and Submission Drawing. [6]

5. Draw to a suitable scale developed plan and elevation of a line plan of a residential building given below : [13]

D: 1.0 m × 2.1 m, D1: 0.75 m × 2.1 m, W: 1.0 m × 1.2 m,

V: 0.45 m × 0.3 m, O: 1.0 m × 2.1 m



Or

6. Draw to a suitable scale developed plan of a single storey framed residential building with schedule of openings having the following units : [13]

Sr.	No. Unit	Numbers	Size (in meter)
1	Living room	1	3.5 × 5.2
2	Bedroom	1	3.0 × 3.0
3	Kitchen	1	3.2 × 3.0
4	W.C.	1	1.0 × 1.2
5	Bath	1	1.2 × 2.1
6	Staircase	Rise = 0.16 m & Tread = 0.27 m, Width of each flight = 1.2 m	
7	Wall thickness	0.23 m (outer) & 0.15 m (inner)	
8	Floor height	3.2 m	

7. Draw a line plan of a hostel building with 80 bed capacity using suitable scale with schedule of openings. Calculate the water requirement for the same. [13]

Or

8. Draw a line plan of a Post Office with schedule of openings using the following data : [13]

- (A) Entrance and moving space : 30 m² with seating arrangement
(B) Public dealing counters : cabins, 6 in no. with area 2 m × 2 m each

- (C) Postmaster's room : 15 m²
- (D) Working area for other staff : 30 m²
- (E) Post separation room : 30 m²
- (F) Safe custody area for cash : 10 m²
- (G) Cash transaction room : 15 m²
- (H) Speed Post Delivery section : 15 m²
- (I) Water room and Toilet (separate for male and female) : 7.5 m².