

Total No. of Questions—8]

[Total No. of Printed Pages—3

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

[5559]-105

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

ARCHITECTURAL PLANNING AND DESIGN OF BUILDINGS

(2015 PATTERN)

Time : 2 Hours

Maximum Marks : 50

- i) Assume suitable data if required.
- ii) Figure to the right indicates 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 and Q. no. 7 or Q. no. 8 on Drawing Sheet only.

- Q 1 A) Differentiate between building line & control line by drawing a suitable sketch. (7)
- B) Explain the meaning and importance of the following : Height zoning and Density zoning (6)

OR

- Q2 A) Enlist the documents to be submitted for seeking Commencement Certificate and Occupancy Certificate. (6)
- B) Enlist different aspects for planning a green building. Explain any two aspects of Green Building planning with sketch. (7)
- Q3 A) Explain the need of a) line plan, b) abbreviations and c) perspective drawing. (6)
- B) Calculate the required opening area for a living room of a HIG bungalow with dimensions 6m x 7.2m x 3.3m in dry hot climate, when the wind is blowing with a velocity of 7.5 kmph; perpendicular to the openings. (6)

P.T.O.

OR

- Q4 A) Explain the following terms (any three) : i) Q ii) K iii) t_1 iv) t_0 (6)
- B) Explain the meaning of fire load and elaborate the need of escapes with appropriate evacuation time. (6)
- 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 (13)

structure, Wall thickness, 150 mm for all, Single storey building, Plinth height 450 mm, All dimensions in the sketch are in m. Indicate suitable locations & sizes of doors, windows and staircase and write the schedule of openings.

LIVING ROOM : 4m x 4 m	KITCHEN WITH WASHING AREA AND STORE INSIDE : 4m x 4 m
TILET TO BE OPERATED FROM LIVING ROOM 1.5 m X 2.5 m	MASTER BEDROOM WITH ATTACHED TOILET (1.5 m X 2.5 m)
ENTRANCE VERANDAH 4 M WIDE WITH STAIRCASE (1.2 m WIDTH)	

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 18 m² ii) Kitchen cum Dining 1 no. approx. area 15 m² iii) Bed rooms 2 no. approx. area 15 m² each
iv) Floor to floor height 3.0 m v) R. C. C. structure vi) Plinth in UCR masonry
vii) Verandah, Passage, Staircase, W.C. and Bath / attached toilet etc. of suitable sizes should be provided. Indicate North, door / windows / ventilators etc.

- Q7 Design a single storey hospital building and draw only the Line Plan with following data: i) Number of general wards, 2 in no, with 8 bed capacity in each ii) 4 special rooms and 4 semi special rooms iii) Reception area with adequate waiting iv) Laboratories / X Ray rooms etc v) Lift / Staircase for future expansion vi) Operation theatres .. 20 m² vii) Varandah, Passage, sanitary units etc. of appropriate dimensions should be provided. Show North direction and indicate door / window locations, also mention internal dimensions and scale. (12)

OR

- Q8 Draw a line plan of an engineering firm using following data : A) (12)
Entrance and moving space : 30 m² with seating arrangement B)
Meeting room with area 30 m² C) Chief engineers' office with
attached toilet 20 m² D) Working area for other staff : 50 m²
E) Record room : 30 m² F) CCTV and other computer service
area 20 m² G) Kitchen with pantry: 15 m² H) Staircase : tread
: 300 mm, rise: 150 mm, floor to floor height: 3.3 m, I) Water
room and Toilet (separate for male and female) : 7.5 m²