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.

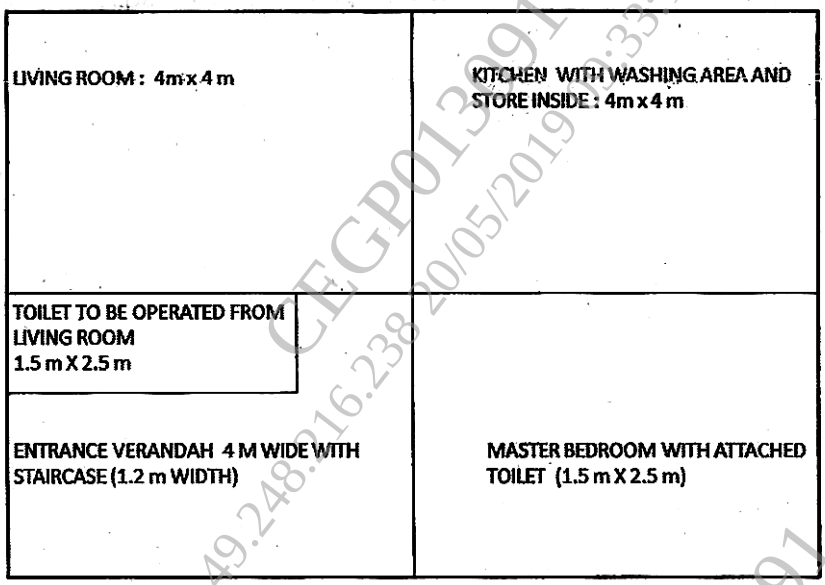
OR

Q4 A) Explain the following terms (any three) : i) Q ii) K iii) t_i 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 .



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 m^2 ii) Kitchen cum Dining 1 no. approx. area 15 m^2 iii) Bed rooms 2 no. approx. area 15 m^2 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 North., door / windows / ventilators etc.

Q 7 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 m^2 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) Entrance and moving space : 30 m^2 with seating arrangement B) Meeting room with area 30 m^2 C) Chief engineers' office with attached toilet 20 m^2 D) Working area for other staff : 50 m^2 E) Record room : 30 m^2 F) CCTV and other computer service area 20 m^2 G) Kitchen with pantry: 15 m^2 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 m^2 (12)