

Total No. of Questions : 8]

SEAT No. :

PC2782

[6352]-6

[Total No. of Pages : 4

S.E. (Civil)

**BUILDING TECHNOLOGY AND ARCHITECTURAL PLANNING
(2019 Pattern) (Semester - III) (201001)**

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Figures to the right indicate full marks.
- 3) Neat figures must be drawn wherever necessary.
- 4) Assume suitable data if required.
- 5) Use of scientific calculator is allowed.

- Q1)** a) Enlist different types of floor finishes and their suitability. [6]
b) What are the functional requirements of good roofing materials? Draw the sketch of king post roof truss. [6]
c) Explain Battened & Ledged Doors with sketch. [5]

OR

- Q2)** a) Explain the procedure of Fixing door and window in detail. [6]
b) Enlist various types of fixtures for doors and explain anyone with a neat sketch. [6]
c) Write a note on Protective Coatings with plastering and finishing. [5]

- Q3)** a) Write a short note on rating system for green building. [4]
b) Draw the sketch of stair. [8]
i) Curved Stair
ii) Spiral stair
iii) Dog legged stair
iv) Bifurcated stair
c) Design a dog legged staircase along with a sketch for an office building in a room measuring 5.8m × 2.8m clear. Vertical distance between the floors is 3.6m and width of flight is to be 1.25m. [6]

OR

P.T.O.

Q4) a) What are the salient features of Green building? [5]

b) A line plan of a residential building is shown in following figure. Draw detailed floor plan with 1:50 or suitable scale. Use the following data:

[13]

- i) All external wall thickness 230mm
- ii) All partition wall 150mm
- iii) RCC Frame structure
- iv) Column Size $0.23\text{m} \times 0.5\text{m}$
- v) Floor to floor height - 3m
- vi) Plinth Height - 0.6m
- vii) Toilet for M. Bed - $1.2 \times 2.1\text{m}$
- viii) All dimensions are in meters

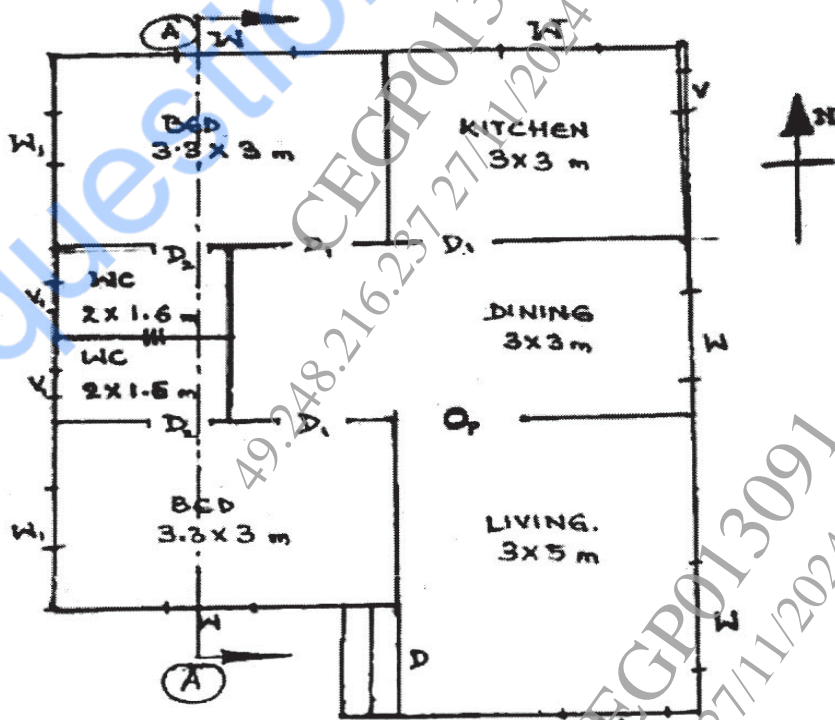


Fig. 1

Q5) a) It is proposed to construct a PWD Executive Engineer's office with the following data: **[13]**

- i) Entrance and waiting-60m²
- ii) Administrative office-100m²
- iii) Sanitary block-20m²
- iv) Executive engineer's office (with attached toilet of suitable size) -35m²
- v) PA to executive engineer (with attached toilet of suitable size) -20m²
- vi) Drawing, printing and Xeroxing- 12m²
- vii) Records and stationary room-30m²
- viii) All passages -2m wide.

Draw to a scale of 1:50 or suitable.

b) What are the salient features of Hospital building? **[5]**

OR

Q6) a) Draw a line plan of a post-office using the following data: **[12]**

- i) Entrance and moving space: 30m² with seating arrangement
- ii) Public dealing counters 6 in no. with 0.5m width
- iii) Post-master's room: 15m²
- iv) Working area for other staff:30m²
- v) Post separation room: 30m²
- vi) Safe custody area for cash 10m²
- vii) Cash transaction room: 12m²
- viii) Speed post-delivery section: 12m²

Water room and Toilet (separate for male and female): 7.5m²

b) What are the salient features of vegetable market building. **[6]**

- Q7)** a) Explain the Concept of TDR. [5]
- b) Write a note on Development plan and its importance. [6]
- c) Write a short note on 7/12 abstract, it's importance and meaning of every term in it. [6]

OR

- Q8)** a) Explain the types of ventilation and its necessity in a residential building? [6]
- b) Explain Two pipe plumbing system along with sketch. [6]
- c) Write a note on planning for good acoustics and also causes of reverberation and echoes. [5]

* * *