

Fifth Semester B.E. Degree Examination, December 2019 (CIVIL ENGINEERING)

COMPUTER AIDED BUILDING PLANNING AND DRAWING

Time: 3 Hours

Max. Marks: 100

Note: 1. Answer any TWO full questions as per INTERNAL CHOICE.

2. Assume any missing data suitably.

Q1.A square RCC column 300X300 mm is resting on a sloped RCC square footing. The depth of foundation is 1.5m below the ground level. The depth of footing at the face of column is 450mm and reduced to 300mm at the edge of footing. The size of footing is 1600X1600mm. Thickness of PCC bed is 75 mm. The column reinforcement consists of 8 bars of 12mm dia. with 2 legged 8mm dia. stirrups at 200mm c/c and the footing reinforcement consist of 10mm dia. bars @100mm c/c both ways. Draw to scale the following.

- a) Plan of the footing show the reinforcement details
- b) Vertical section of the column with footing
- c) Cross Section of column

(40 Marks)

Q2.Draw to scale the Plan and Sectional elevation of a RCC dog legged staircase for a building having the following data:

Inside dimension of staircase =5.5X3m, width of landing =1.5m, Rise=150mm, Tread =300mm, Thickness of Waist slab =150mm, Floor to Floor height =3.3m. Assume suitable reinforcement for stair slab (40 Marks)

- Q3. The line diagram of residential building is given in Fig Q3. Draw to scale the following:
 - a) Plan at sill
 - b) Front Elevation
 - c) Section along AA
 - d) Schedule of Openings

(60 Marks)

OR

- Q4. The line diagram of residential building is given in Fig Q4. Draw to scale the following:
 - a) Plan at sill
 - b) Front Elevation
 - c) Section along AB
 - d) Schedule of Openings

(60 Marks)

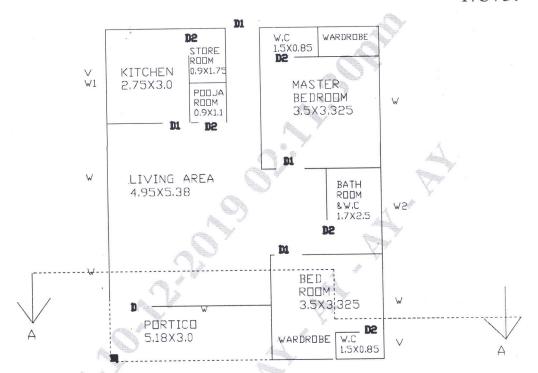


Fig Q.3

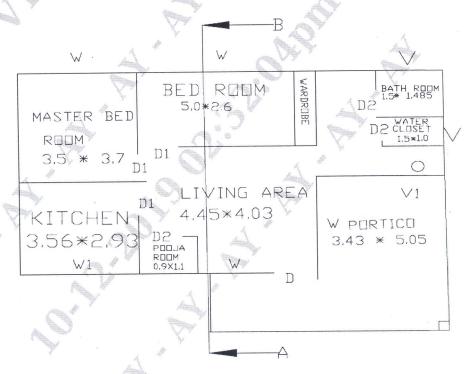


Fig Q.4

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