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Fifth Semester B.E. Degree Examination, December 2018  
(CIVIL ENGINEERING)

**COMPUTER AIDED BUILDING PLANNING AND DRAWING**

Time: 3 Hours

Max. Marks: 80

**Note:** Answer any *TWO* full questions. Assume any missing data suitably.

- Q1.** A square RCC column 550X550 mm is resting on a sloped RCC square footing. The depth of foundation is 1.5 m below the ground level. The depth of footing is reduced to 750 mm at the face of column to 300 mm at the edge of the footing. The size of footing is 1250x1250mm. Thickness of PCC bed is 200mm. The column reinforcement consist of 8 bars of 16 mm dia, with 2 legged 8 mm dia stirrups at 200 mm c/c and the footing reinforcement consist of 12 mm dia bars @ 150 mm c/c, both ways. Draw to scale the following
- Plan of the footing showing the reinforcement details.
  - Vertical section of the column with footing
  - Cross section of column.

(30 Marks)

OR

- Q2.** Draw to scale the plan and sectional elevation of both the flights of a open navel stair with rectangular well for an office building with the following data:  
Inside dimension of staircase=6X4.5m  
Height between the floors=3.75m  
Thickness of the floor slab and the landing slab=150mm  
Width of stair =1.5m.

(30 Marks)

- Q3.** The line diagram of a residential building is given in Fig Q3. Draw to scale the following :
- Plan at sill.
  - Front elevation.
  - Section along XX.
  - Schedule of openings.

(50 Marks)

OR

- Q4.** The line diagram of a residential building is given in Fig Q4. Draw to scale the following :
- Plan at sill.
  - Front elevation.
  - Section along XX.
  - Schedule of openings.

(50 Marks)

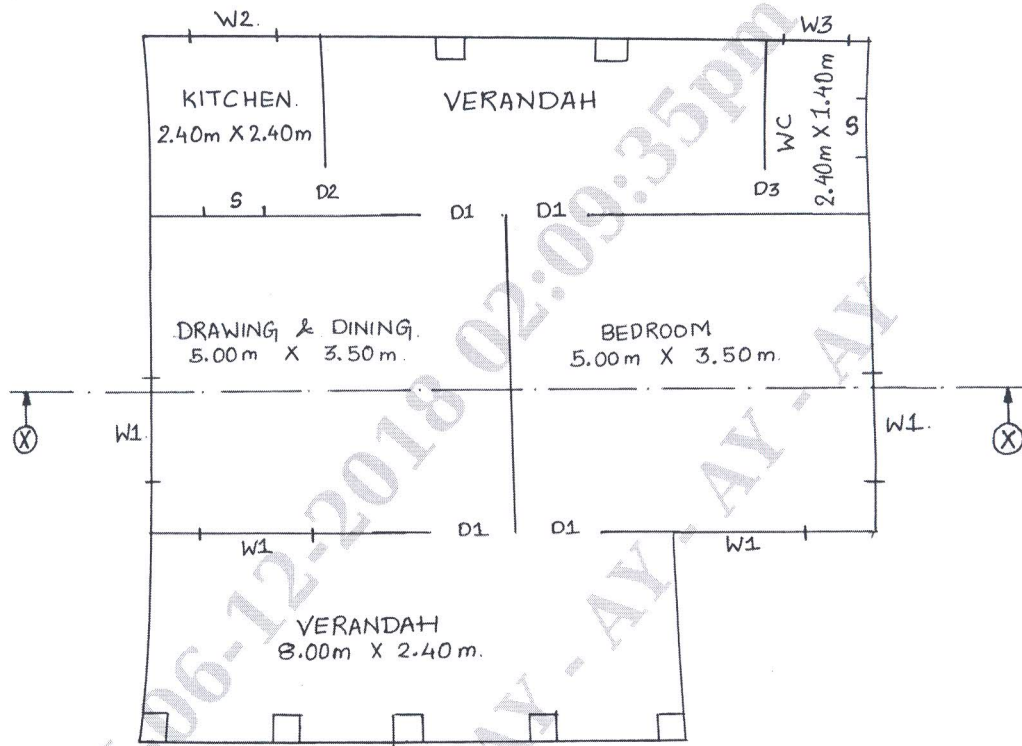


Fig. Q3

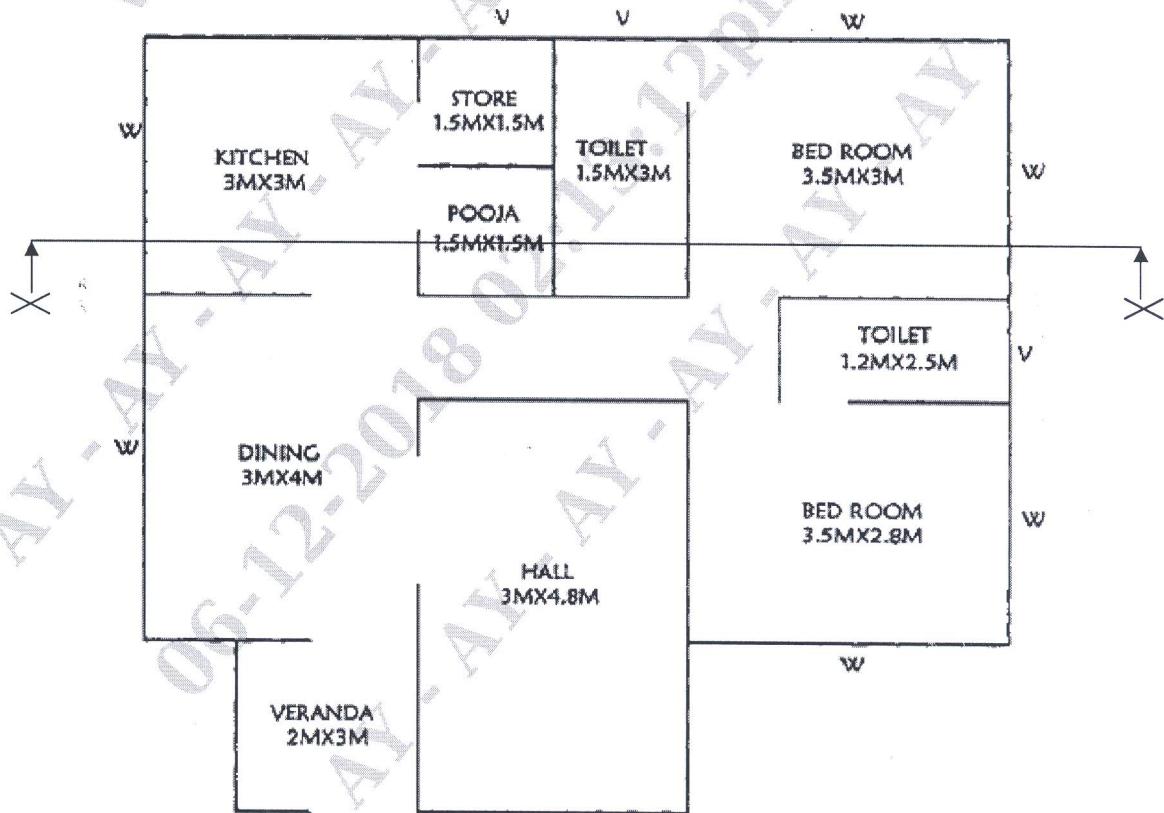


Fig. Q4