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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.** Draw to scale a singly reinforced beam for the following details. Size of the beam 400mm X 550 mm, clear span 4500mm, the beam is reinforced with 4 nos of 16 mm dia bars as main reinforcement, two hanger bars of 12 mm dia, and 8 mm dia 2LVS at 140 mm c/c. supported on wall 230mm thick.

- Longitudinal section showing the reinforcement details.
- Cross section of Beam at center and Face of support

(30 Marks)

OR

- Q2.** Draw the cross section and Plan of a RCC dog legged stair for a building having the following details.

Clear stair hall size 2.5X4.5m, width of landing 1.2m, width of each flight 1.2 m,  
Rise=150mm, Tread=150mm, Thickness of waist slab =150mm  
Floor to floor height 3.6m.

(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 Hospital building is given in Fig Q4. Draw to scale the following :

- Plan at sill.
- Front elevation.
- Section along XX.
- Schedule of openings.

(50 Marks)

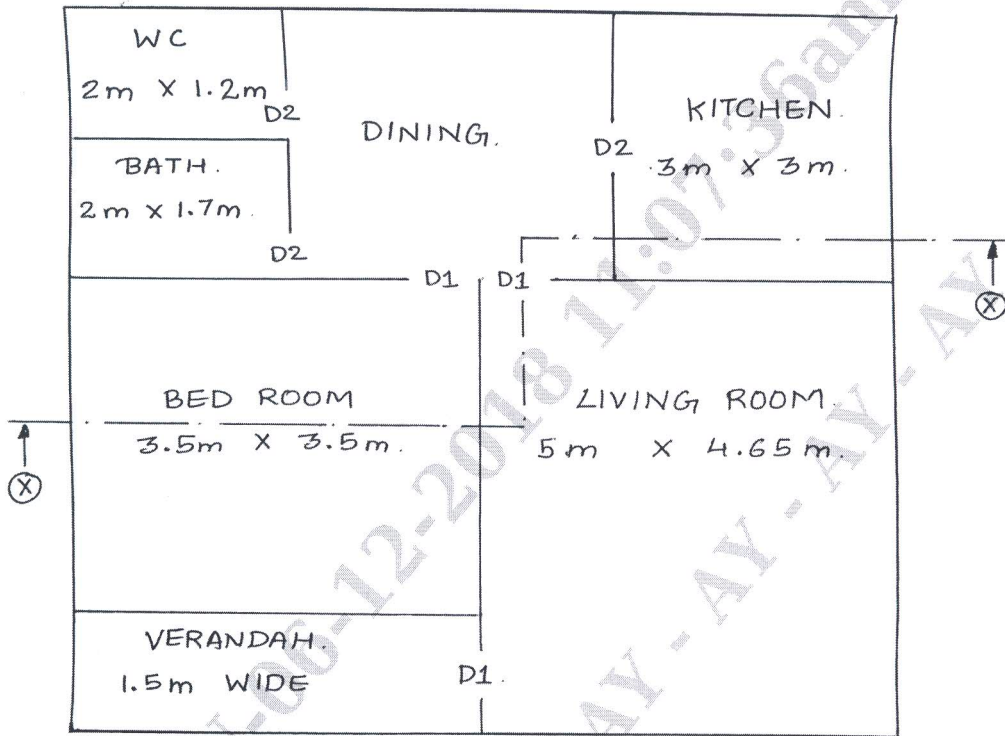


Fig. Q3

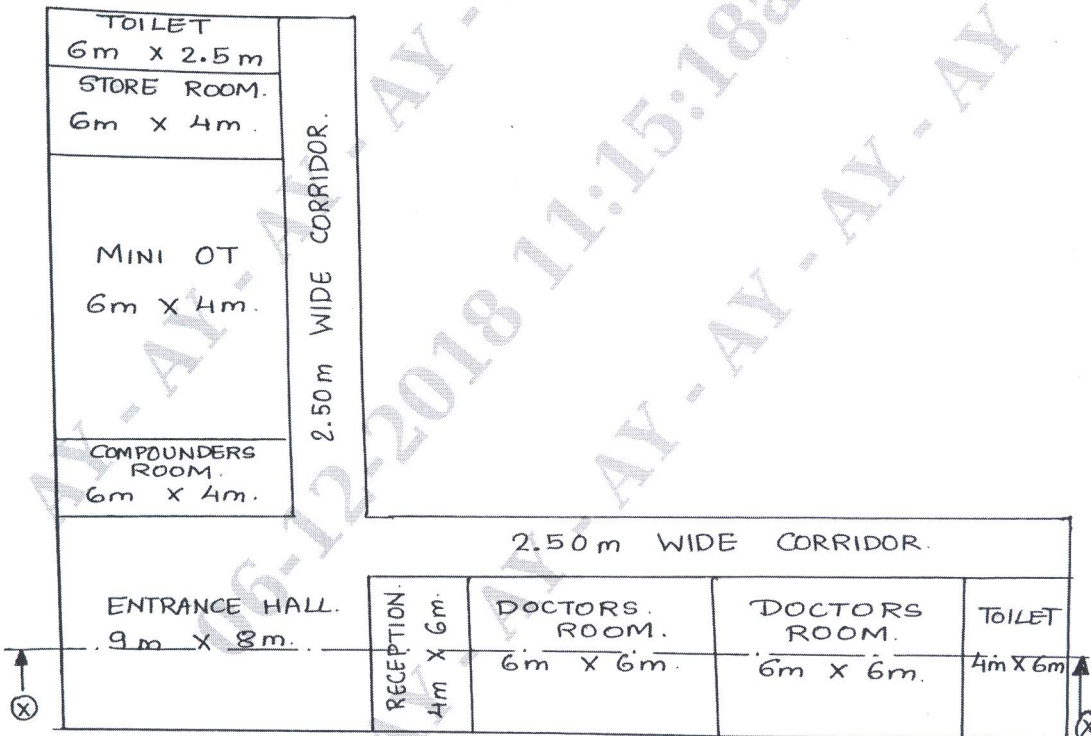


Fig. Q4

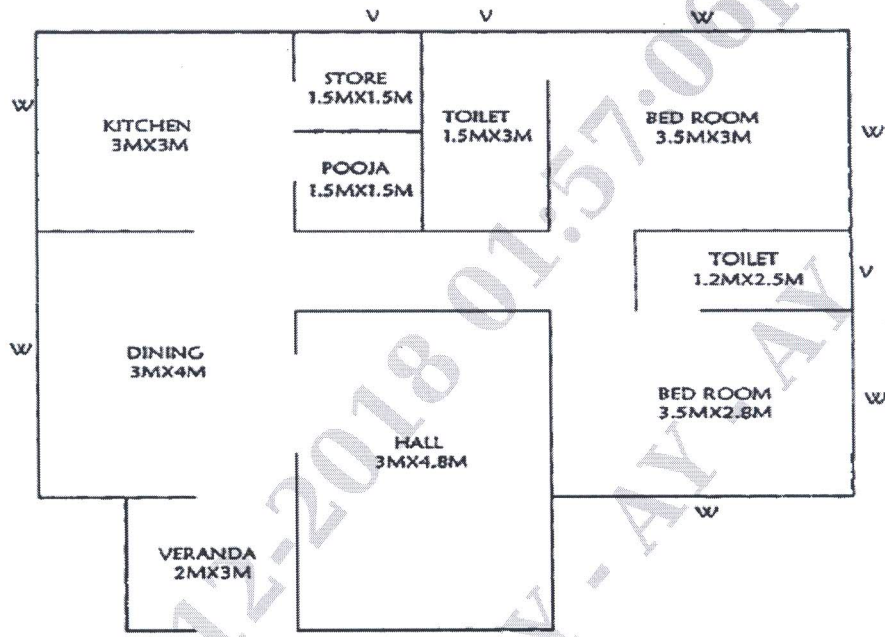


Fig. Q3

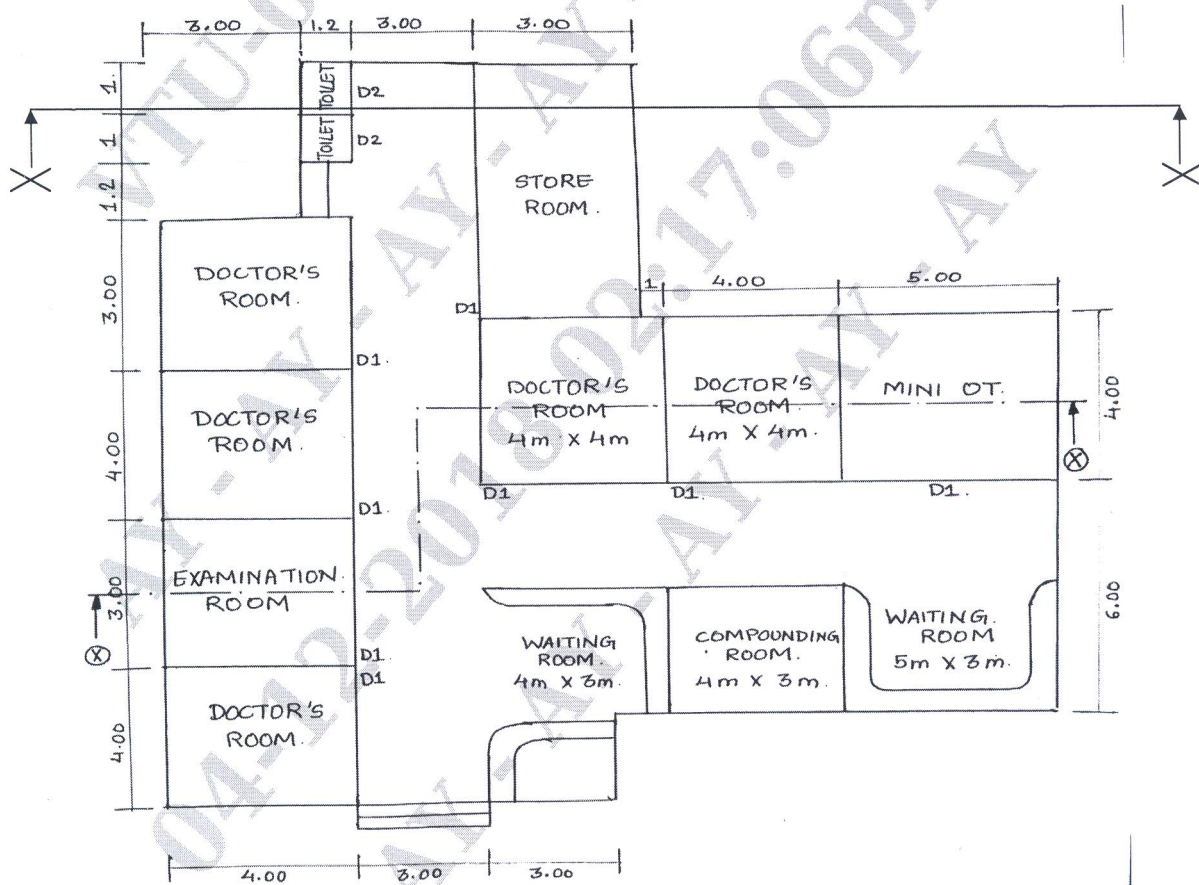


Fig. Q4