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**Fifth Semester B.E. Degree Examination, June 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 350mm X 450 mm, clear span 5000mm, the beam is reinforced with 4 nos of 20 mm dia bars as main reinforcement, two hanger bars of 12 mm dia, and 8 mm dia 2LVS at 150 mm c/c. supported on wall 230mm thick.
- Longitudinal section showing the reinforcement details.
  - Cross section at center of beam and at face of support

(30 Marks)

**OR**

- Q2.** Draw a Sectional elevation and plan of a RCC dog legged stair for a building having the following particulars:  
Clear size of stair hall=2.5X4.5m  
Width of landing=1.2m  
Width of each flight=1.2m  
Rise=150 mm Tread=300 mm  
Thickness of waist slab=150 mm  
Height of floor=3.6 m

(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 Hostel building is given in Fig Q4. Draw to scale the following :
- Plan at sill.
  - Front elevation.
  - Section along XX.
  - Schedule of openings.

(50 Marks)

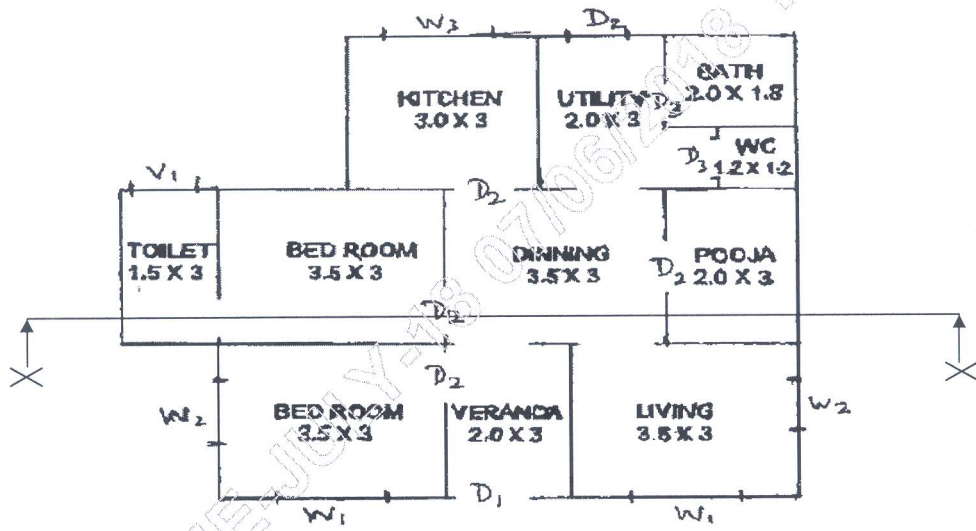


Fig. Q3

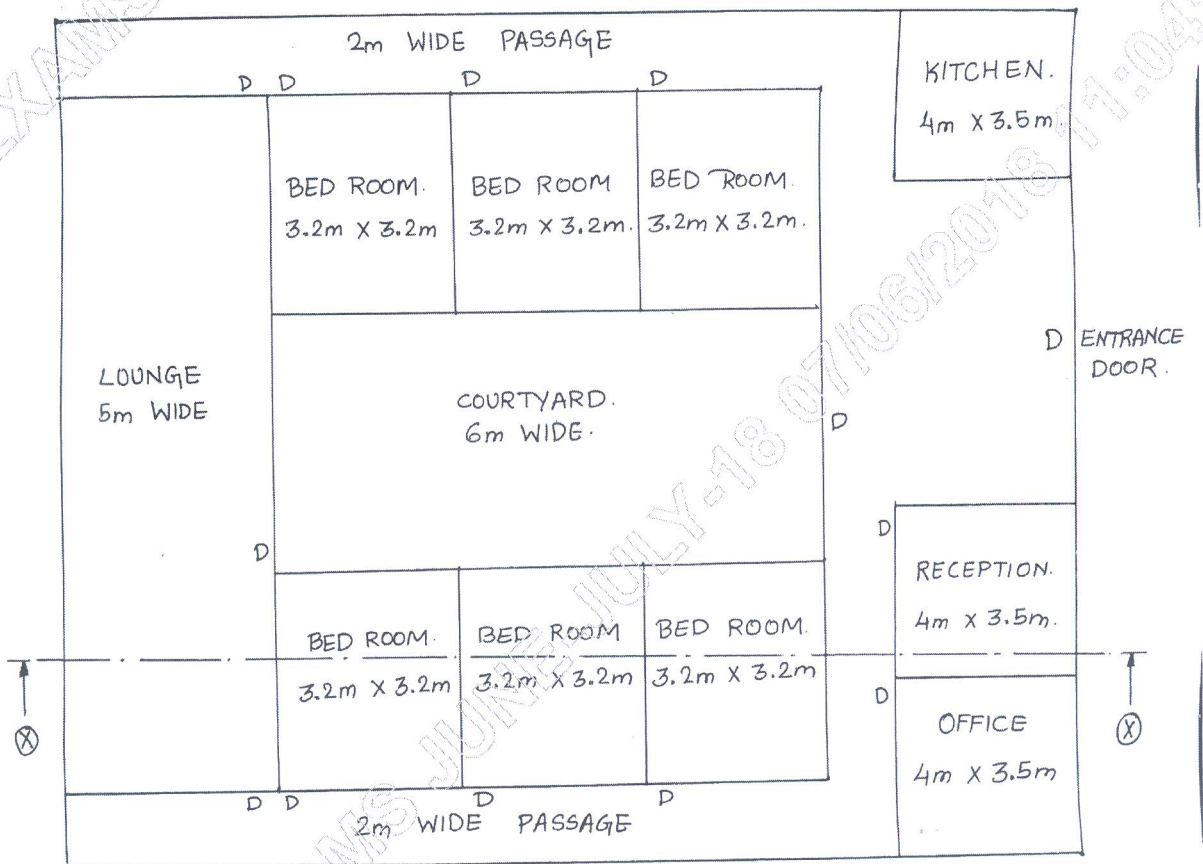


Fig. Q4