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Fourth Semester B.E. Degree Examination, June/July 2017

Building Planning and Drawing

Time: 4 hrs.

Max. Marks:100

Note: Section I is compulsory and answer any two full questions from section II.

SECTION - I

- 1 Single line diagram of a residential building shown in Fig Q1, Draw to a scale of 1:100 the following views.
- Plan @ sill level (25 Marks)
 - Front elevation (15 Marks)
 - Section along A-A (15 Marks)
 - Schedule of opening (05 Marks)

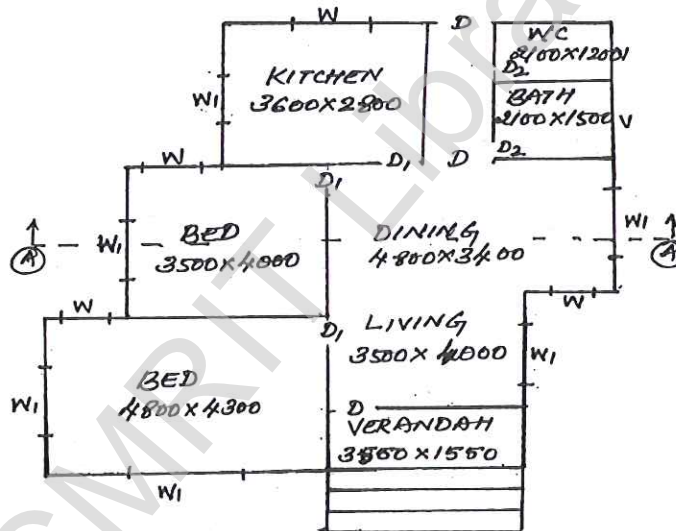


Fig Q1

Note : All Dimensions are in mm

Schedule of opening

Doors

- D - $1.2 \times 2.1\text{m}$
 D₁ - $1.05 \times 2.1\text{m}$
 D₂ - $0.75 \times 2.1\text{m}$

Windows

- W - $1.2 \times 1.2\text{m}$
 W₁ - $1.5 \times 1.2\text{m}$
 VENTILATORS
 V - $0.75 \times 0.45\text{m}$

SECTION - II

- 2 a. Draw a plan and sectional elevation of R.C.C doglegged stair case for an office building which measures $2.5\text{m} \times 5\text{m}$. The vertical distance between the floors is 3.6m the width of staircase is 1.2m . The riser and tread are 150mm and 300mm respectively. (10 Marks)
- b. Draw to a scale of 1:10 the elevation of fully paneled Double shutter Door for an opening of $1.2\text{m} \times 2.1\text{m}$. (10 Marks)

- 3 a. Prepare a bubble diagram for school building and develop single line diagram based on the bubble diagram, the following are particular shall be provided
 i) Head masters room ii) Office iii) Staffroom iv) Class room – 10 Number
 v) Sanitary block for boys and girls separately vi) Sports room vii) Library. (10 Marks)
- b. Prepare bubble diagram and develop the line diagram for the primary health centre to suitable scale. The following are the particular shall be provided :
 i) Entrance lobby ii) Doctors room iii) Examination room – 2 No.
 iv) Minor operation theatre v) Nurse room vi) Dispensary
 vii) Store room viii) Gents toilet ix) Ladies toilet
 x) Technician room (10 Marks)
- 4 Prepare the detailed drawing (only plan) of single floor residential building for the following particular.
 Plot – 9m × 13m
 (East-west – 9m, North-south – 13m)
 Road width – 7.5m @ South side of plot
 Set back ; Front – 3m, Rear – 2m, side – 1.5m
 and also find the floor area ration carpet area and floor space index of the building.(20 Marks)
- 5 The line diagram of Residential building in shown in Fig. Q5 prepare the water supply and sanitary layout plans with usual notations (select suitable scale) (20 Marks)

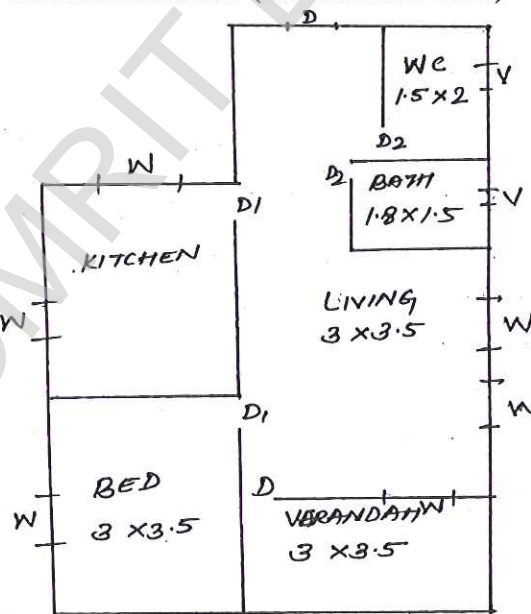


Fig Q5

Note : All Dimensions are in m
 Schedule of opening.

<u>DOOR</u>	<u>WINDOWS</u>	<u>VENTILATOR</u>
D - 1.2 × 2.1m	W - 1.2 × 1.4m	V - 0.75 × 0.4m
D ₁ - 1.05 × 2.0m		
D ₂ - 0.75 × 2.0m		
