

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

August 2024 Semester End Main Examinations

Programme: B.E.

Branch: Civil Engineering

Course Code: 23CV4ESBDC

Course: Building Drawing and CAD

Semester: IV

Duration: 4 hrs.

Max Marks: 100

Instructions: 1. Unit I and Unit III is Compulsory. Answer any 1 question from Unit II
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.			UNIT – I	CO	PO	Marks
	1		Draw to suitable scale line plan of school building located at district place.	CO 1	PO2	20
			UNIT – II			
	2		Draw plan and sectional elevation of RCC dog legged staircase for an office building which measures 3m x 5.5m. The vertical distance between the floor is 3.3m (including landing). Thickness of the floor slab is 150mm. Provide steps with tread of 300mm and rise of 150mm. Thickness of waist slab and landing slab is 150mm. Width of stair is 1.5m.	CO 2	PO3	20
			OR			
	3	a)	Draw the elevation of the given steel roof truss (Fig 1) and show the connection details at joint A and E using the data given in figure. i. 8mm thick gusset plate ii. Use 2 numbers of 12 ϕ HSFG bolts for each connection iii. Truss is supported on a concrete column of size (500 x 500) mm iv. Thickness of the base plate = 25mm v. Anchor bolts of 450mm length and 25 ϕ – 8 numbers at the connection of truss and column	CO 2	PO3	20
			UNIT – III			
	4		Figure no. 2 shows a line plan of a residential building. Draw to suitable scale the following views, show all dimensions and label the parts. a) Developed plan b) Front elevation c) Section XX	CO 2	PO3	60

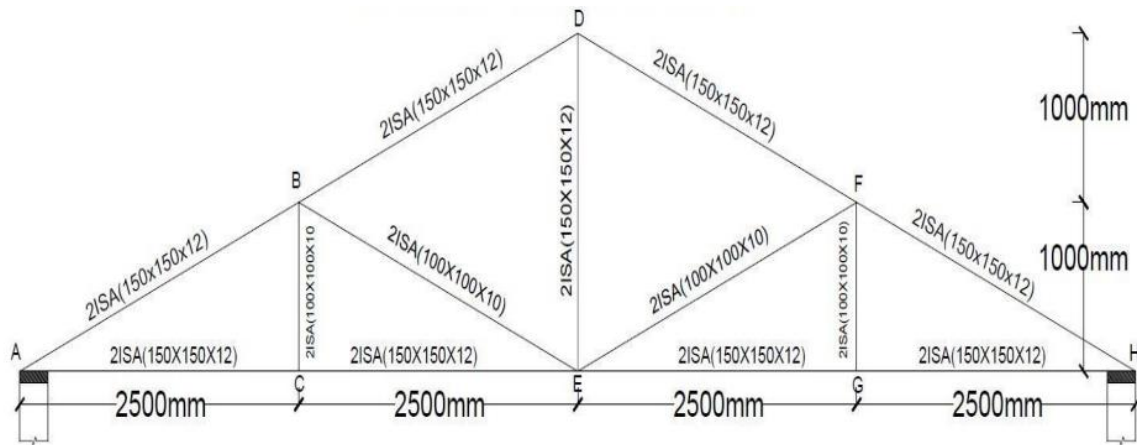


Figure 1: Line Diagram for Steel Truss

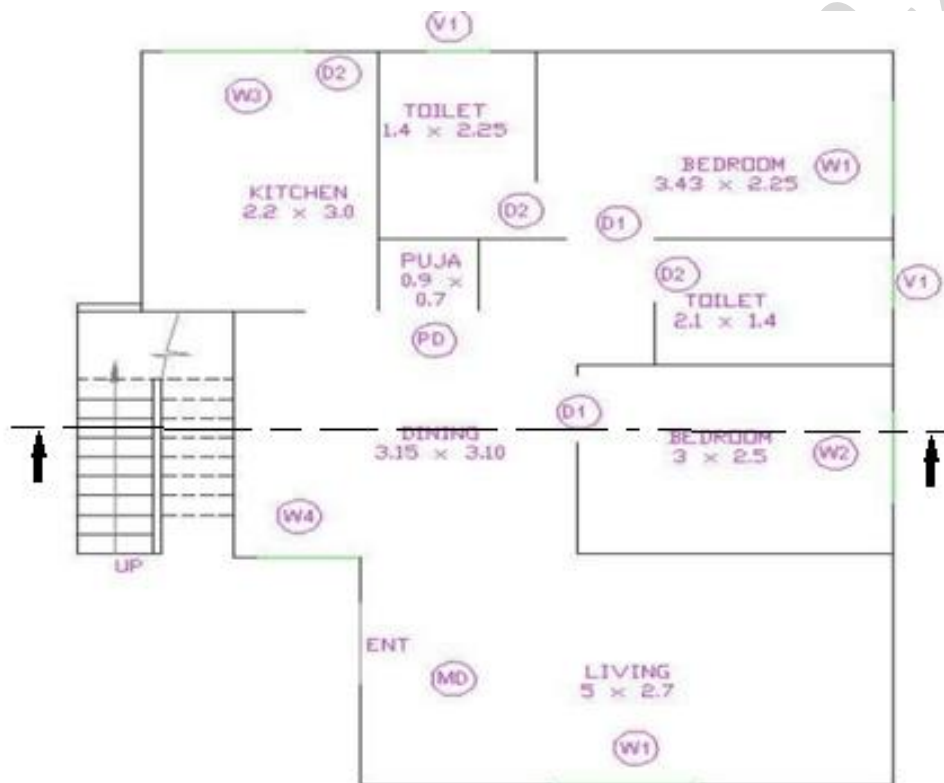


Figure 2 : Plan of Single Storey Building

Where,

MD – 1.1m x 2.1m	W1- 1.5m x 1.35m
D1 – 0.9m x 2.1m	W2- 1.2m x 1.35m
D2 – 0.75m x 2.1m	W3- 1.45m x 1.00m
PD – 0.90m x 2.1m	W4- 1.05m x 1.35m
V1 – 0.60m x 0.60m	
