U.S.N.										

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

Autonomous Institute Affiliated to VTU

September / October 2023 Semester End Main Examinations

Programme: B.E. **Semester: IV**
Branch: Civil Engineering **Duration: 4 hrs.**
Course Code: 22CV4PCBPD **Max Marks: 100**
Course: Building Planning and Drawing **Date: 22.09.2023**

Instructions: 1. Answer THREE full questions
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		Prepare a bubble diagram and develop a line diagram for a primary health center, with the following requirements: a. Medical Assistants b. Physicians c. Conference d. Reception Area e. Lab Area f. Exam Rooms g. Storage h. Waiting area i. Bathrooms j. Waiting Shots	CO 1	PO2	**20**
		UNIT - II			
2		Prepare a working drawing for an isolated column footing (RCC) for a column size 300mm x 300mm reinforced with 8# of 12mm ϕ HYSD- steel as main bars together with 2 legged 8mmϕ stirrups @ 200mm c/c. Details of Footing: Size of Footing is 1.6m x 1.6m and the thickness of the footing at the face of the column is 450mm which reduces to 300mm at the edge of footing. The mat comprises of 10mm ϕ TOR-steel @ 100mm c/c both ways. The footing is provided with PCC bed in 1:3:6 of thickness 75mm. Depth of Foundation is 1.5m from ground level.	CO 2	PO3	**20**
		OR			
3		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 floors is 3.3m (including landing). Thickness of Floor slab and landing slab is 150mm Width of Stair = 1.5m, Width of landing = 1.5m Tread = 300mm, Riser = 150mm Waist slab thickness = 150mm Reinforcement details: Main steel: 10mm ϕ @ 125mm c/c spacing.	CO 2	PO3	**20**

			Distribution bars: 8mm ϕ@ 250mm c/c spacing.			
			UNIT - III			
	4		Draw Plan, elevation and sectional elevation including Plumbing and Sanitary services for a given line diagram of single storey residential building in figure 1	CO 3	PO3	**60**

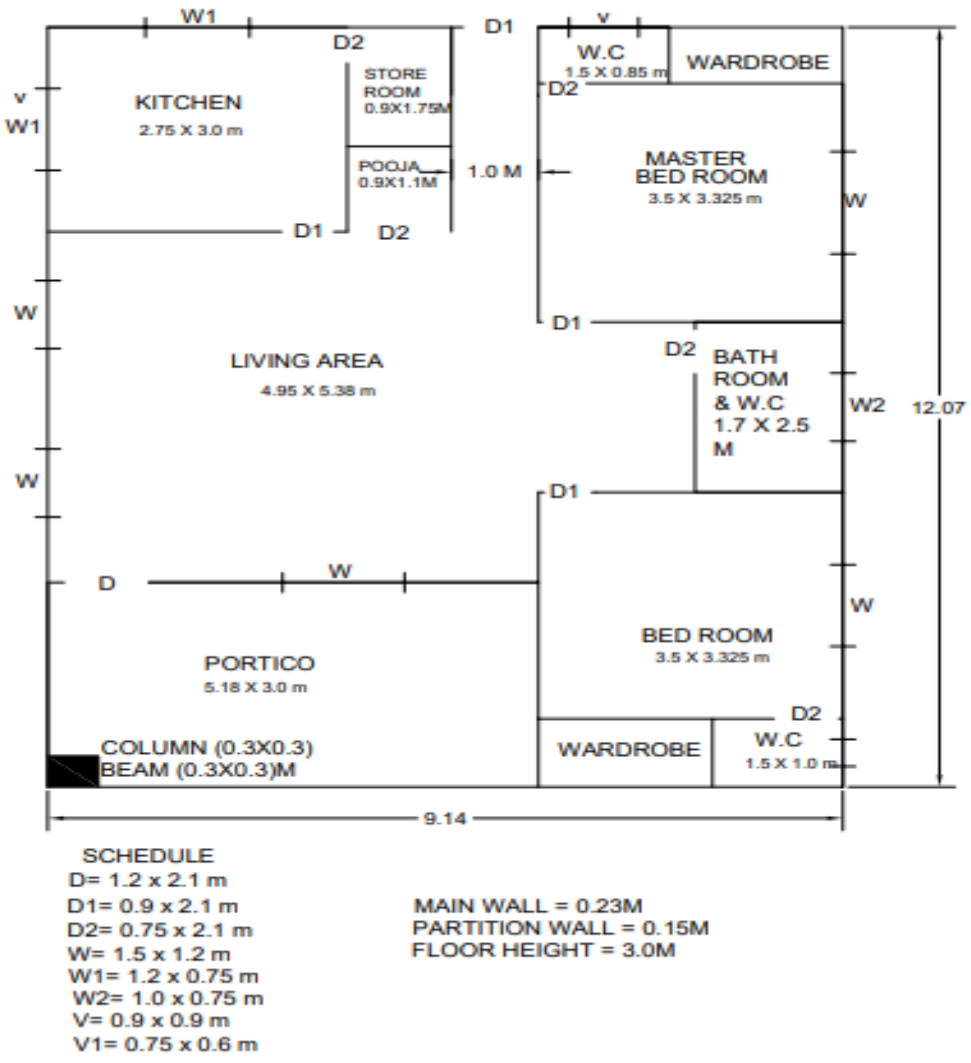

Fig 1: Line Diagram of Single Storey Residential Building

******