Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – MAY 2025

Date: 27-05-2025 **Time:** 09:30 am – 12:30 pm

School: SOE	**Program:** B. Tech-CIV	
Course Code: CIV3001	**Course Name:** Estimation, Costing and Valuation	
Semester: VI	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	30	42	28		

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **10Q x 2M=20M**

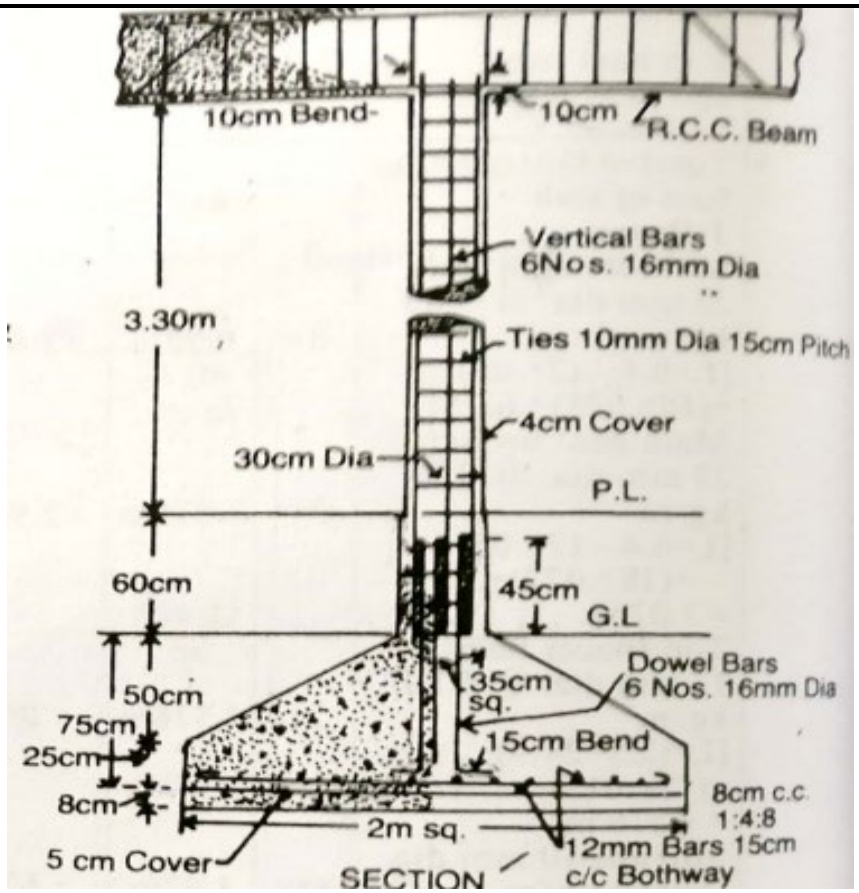
1.	Explain the method of preparing preliminary estimate for roads and highways.	**2 Marks**	**L2**	**CO1**
2.	List any four types of estimate.	**2 Marks**	**L1**	**CO1**
3.	List any four types of contract.	**2 Marks**	**L1**	**CO1**
4.	List the unit of measurement for Damp proof course, brick works, pointing and skirting.	**2 Marks**	**L1**	**CO1**
5.	List any two methods of Preliminary estimate.	**2 Marks**	**L1**	**CO1**
6.	List two methods of estimation of buildings.	**2 Marks**	**L1**	**CO2**
7.	Explain the term valuation of buildings.	**2 Marks**	**L2**	**CO3**
8.	Explain sinking fund with a formula.	**2 Marks**	**L2**	**CO3**
9.	Explain obsolescence in valuation of buildings.	**2 Marks**	**L2**	**CO3**
10.	List any two purpose of valuation of buildings.	**2 Marks**	**L1**	**CO3**

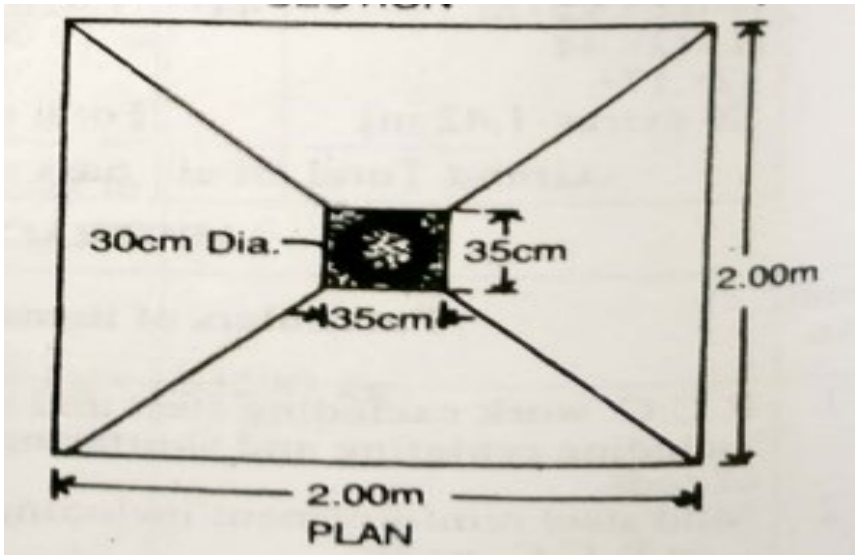
Part B

Answer the Questions. **Total Marks 80M**

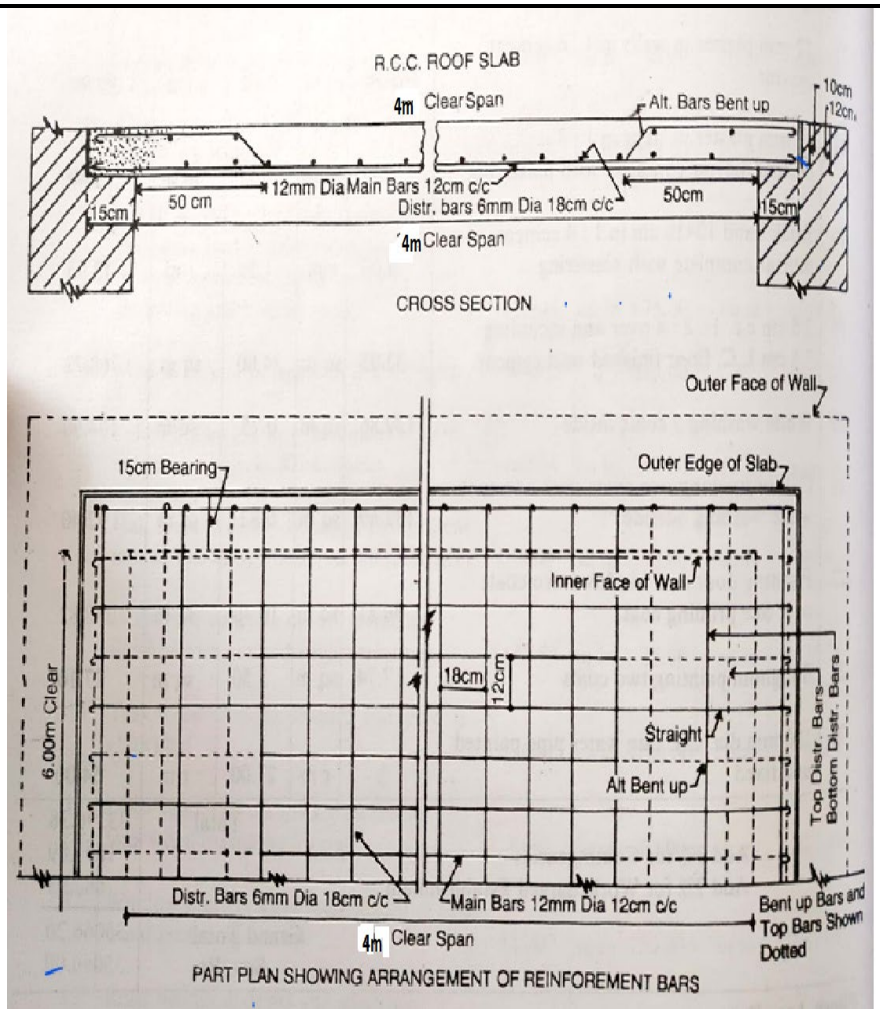
11.	**a.**	Prepare an estimate which needs to be prepared in short duration of time for a building at Rajanukunte having a carpet area of 20000 sq. ft, given the following data. It may be assumed that 35% of built-up area will be taken up by corridors, verandahs, lavatories, staircases, etc. and 11% of built up area will be occupied by wall and other supports. (i) Plinth area rate - Rs. 1000.00 per sq. m (ii) Extra for special Architectural treatment – 1% of the building cost (BC) (iii) Extra for water supply and sanitary installation – 5% of the building cost (iv) Extra for electrical installations – 12% of Building cost (v) Extra for services – 5% of the building cost (vi) Contingencies – 3% (vii) Supervision charges - 8%	**15 Marks**	**L3**	**CO 1**
	b.	Explain revised and supplementary estimate.	**5 Marks**	**L2**	**CO 1**
		Or			
12.	**a.**	Explain the various objectives of an estimation.	**15 Marks**	**L2**	**CO 1**
	b.	Explain preliminary estimation.	**5 Marks**	**L2**	**CO 1**

13.	**a.**	Figure shown below is a RCC column for a construction site at Vijaynagar with foundation footing. Prepare the estimate for the following items work. A) Earthwork in excavation in foundation, B) Cement concrete 1:4:8 at the base C) RCC work 1:2:4 in footing D) RCC work 1:2:4 in column and E) Steel reinforcing bar.	**20 Marks**	**L3**	**CO 2**

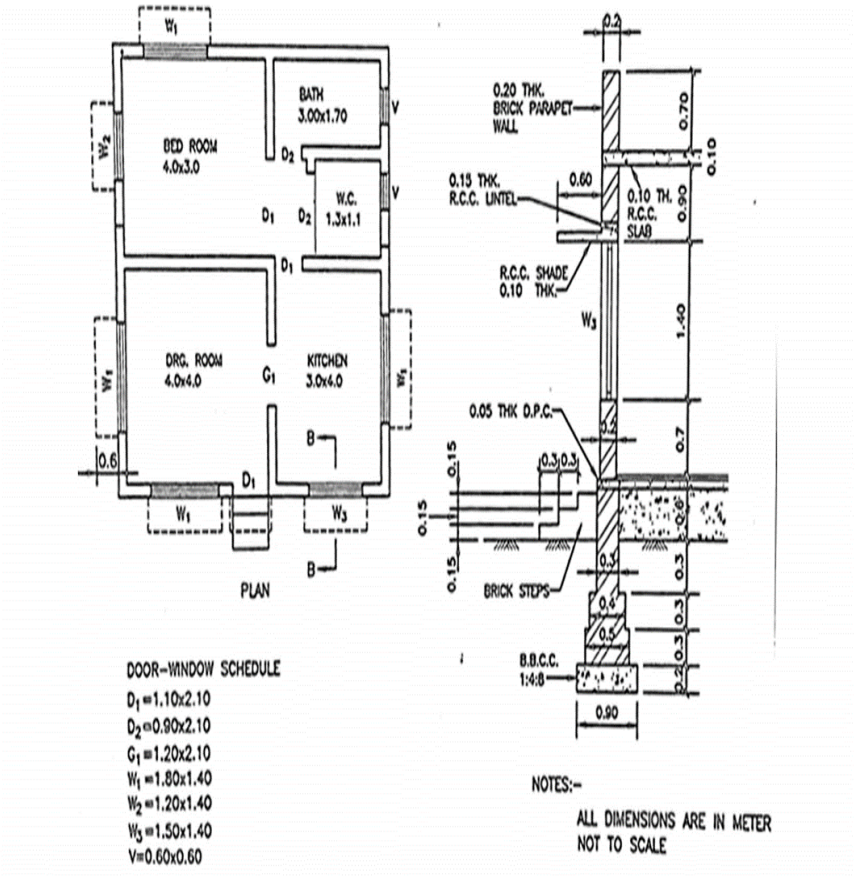


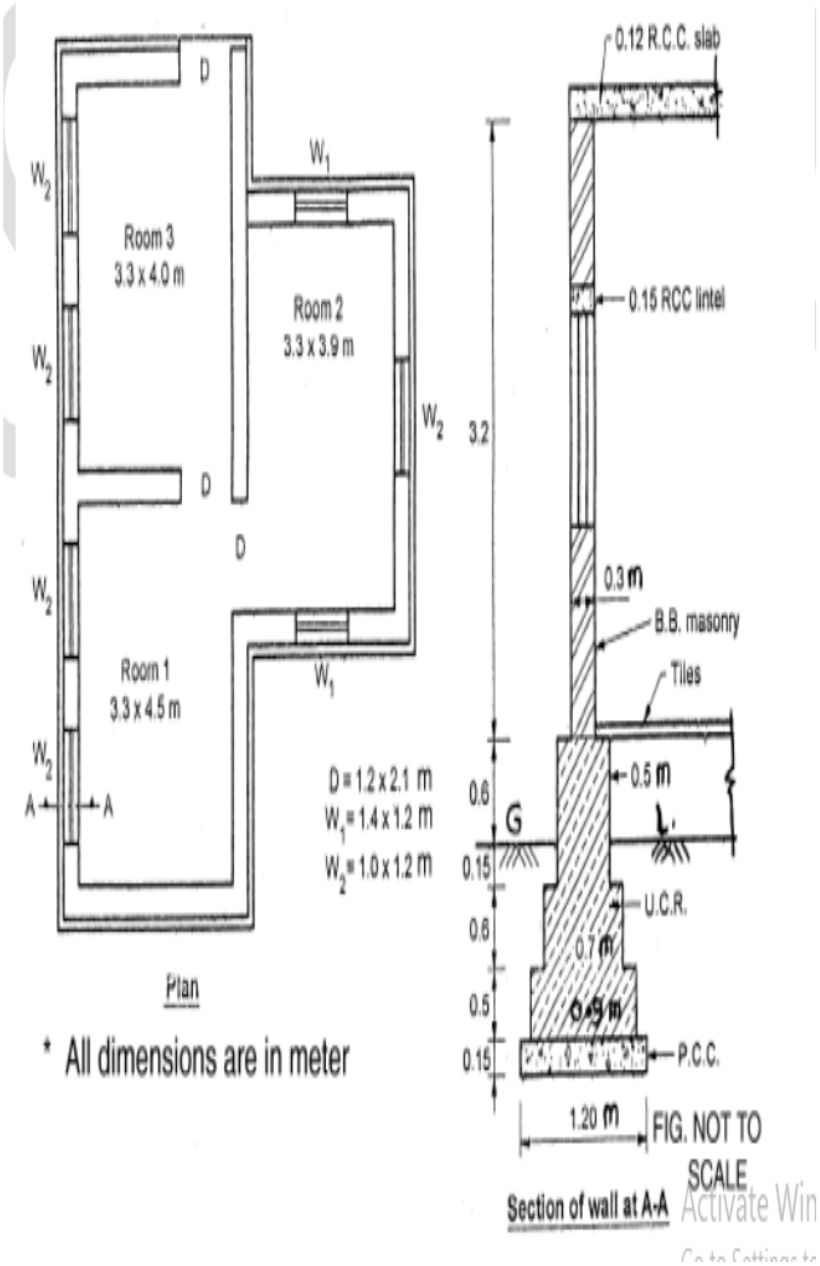


		Or			
14.	**a.**	An estimate needs to be prepared for a RCC roof slab for building at Malleshwaram with 4m clear span and 6m length from the given drawing. RCC work including centering and shuttering can be taken out separately.	**20 Marks**	**L3**	**CO 2**



15.	**a.**	Estimate the quantities of the following items of a residential building from the given plan and section shown in the figure by center line method. A) Earth work in excavation in foundation B) Lime concrete in foundation C) I class Brickwork in 1:6 cement mortar in foundation and plinth D) 2.5 cm thick Damp proof course	**20 Marks**	**L3**	**CO 2**

		 DOOR-WINDOW SCHEDULE D_1=1.10x2.10 D_2=0.90x2.10 G_1=1.20x2.10 W_1=1.80x1.40 W_2=1.20x1.40 W_3=1.50x1.40 V=0.60x0.60			
Or					
16.	**a.**	Taking out the quantities is very important step in estimation. In this context, prepare an estimate for the following items of works by center line method for the building plan whose line diagram is given below. The Fig. show the plan of superstructure wall of a 2 BHK residential building and section represents the cross sections of the walls with foundation, along with deductions for all the openings mentioned in the drawing and lintels over all the openings a) Earthwork in excavation in foundation. b) Plain cement concrete (PCC) in foundation. c) Brickwork in foundation and plinth in 1:6 cement mortar. d) First class brickwork in super structure in 1:6 cement mortar	**20 Marks**	**L3**	**CO 2**



17.	**a.**	A four storied building is standing on a plot of 1000 square meter near Malleshwaram. The plinth area of each storey is 500 square meter. The building is RCC framed structure and the life of the building is 60 years. The building fetches a rent of Rs. 2000 per month. Work out the capitalized value of the property on the basis of 7% net yield. For sinking fund 4% compound interest may be assumed. Cost of land is Rs. 3000 per square meter. Assume a) Repairs as 10% of gross income, b) Municipal tax at 20% of gross rent, c) property tax at 3% of gross rent, d) Insurance premium 2% of gross rent, e) Other miscellaneous charges at 1% of the gross income. Assume the sinking fund required to be accumulated at the rate of Rs. 200 per square meter of plinth area.	**20 Marks**	**L3**	**CO 3**
		Or			

18.	**a.**	Explain the terms valuation, scrap value, gross income and net income also state the purpose of valuation of buildings.	**20 Marks**	**L2**	**CO 3**