K. K. Wagh Institute of Engineering Education & Research, Nashik

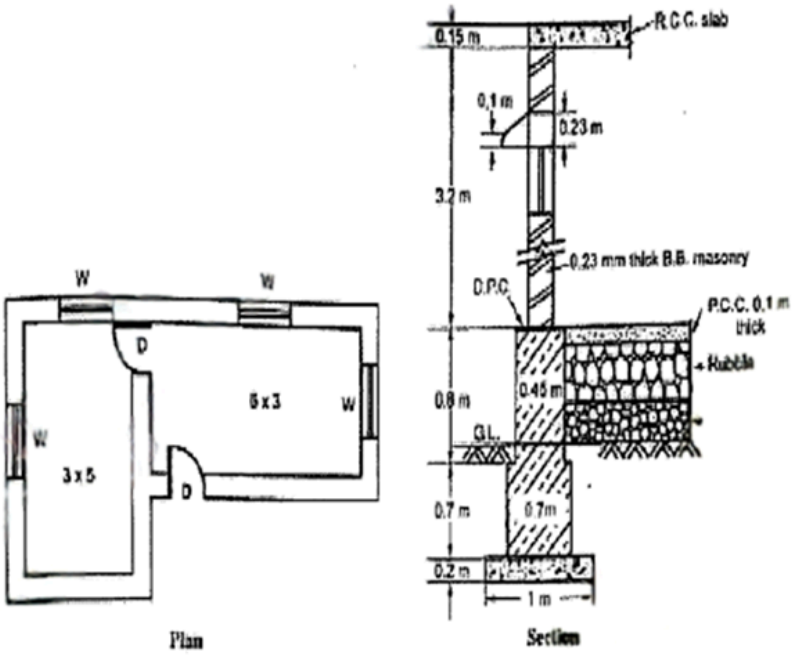
(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:VI
Class:TY	Program:B.Tech
Branch Code:CIV	Pattern:2022
Name of Course:Quantity Surveying	Course Code:CIV223015(A)
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains three page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

		Marks	CO
Question No. 1			
1a)	What is the State Schedule of Rates (SSR) in quantity surveying?	(6)	CO1
Question No. 2			
2a)	What is an Approximate Estimate? What is the purpose of preparing an Approximate Estimate?	(6)	CO2
Question No. 3			
3a)	List the measurement units, rules, and deductions specified in IS 1200 for masonry and RCC works.	(8)	CO3
	OR		
3b)	Elaborate on the significance of contingencies, taxes, overhead charges, and contractor's profit in a detailed estimate.	(8)	CO3
3c)	Determine the quantities of following item by PWD method (assume any suitable data) Excavation in foundation, PCC in foundation, UCR masonry in cement mortar (1:6) in foundation, Damp proof coarse 3cm thick.	(8)	CO3



OR

3d) Calculate Quantity of Straight bar, Bent up bar Bar, Anchor Bar, & Stirrups for a R.C.C. Simply supported beam of 300 mm X 650mm is reinforced with 4 number of 20 mm diameter bars. The main bars are placed in one row and two bar bent up out of 4. Two top anchor bar of 12 mm diameter are provided and stirrups of 6 mm diameter are provided at 140 mm c/c span over beam of length 5.6m. End beraing is 30 cm. (8) CO3

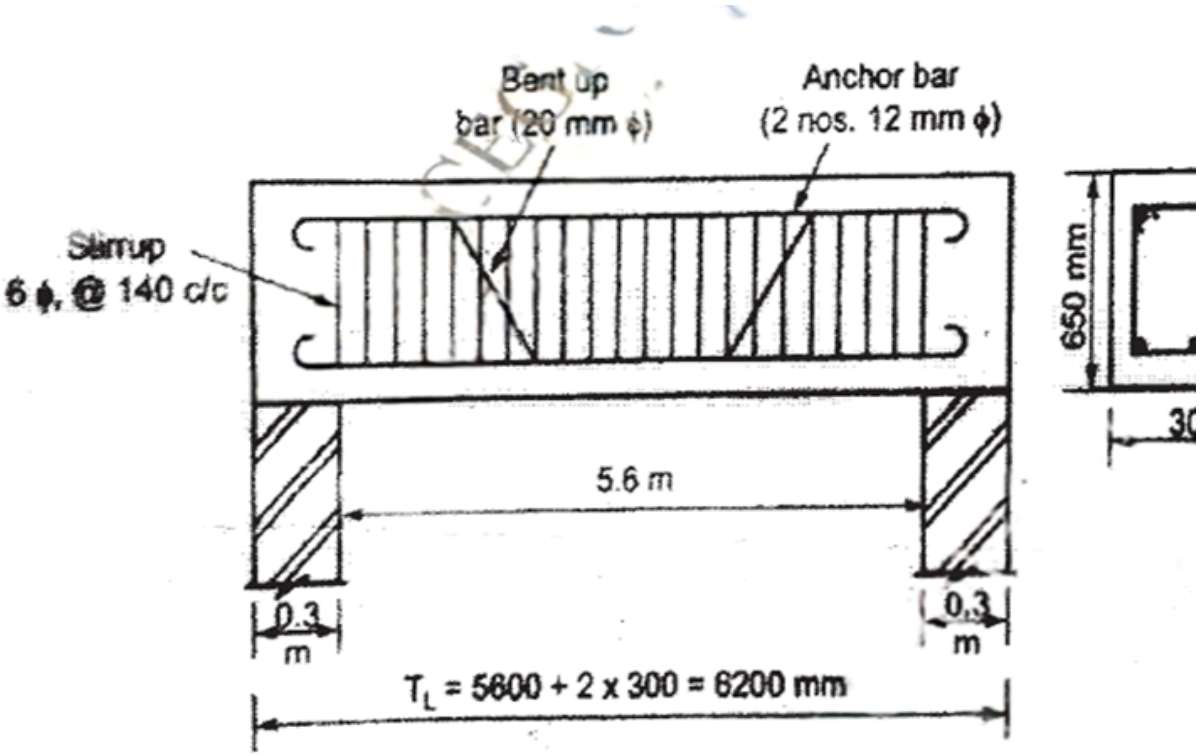


Fig. No. 2.a

Question No. 4

4a) Calculate the quantities of Earthwork is cutting and filling for road with following data, (8) CO4

i) Formation width of road is 12m

ii) Slope in cutting 1.5:1

iii) Slope in Banking 2:1

Chainage	00	30	60	90	120
G.L. in m	500	498.50	496.70	497	494
F.L. in m	497	496.5	496	495.5	495

OR

4b) Calculate the quantities of Earthwork is cutting and filling for road with following data (8) CO4

i) Formation width of road is 10m

ii) Formation level of starting chainage is 50.40 m

iii) Side slope is 2:1 for filling and 1.5:1 in cutting

iv) The road surface shall be given falling gradient of 1:100

Chainage	0	30	60	90	120	150	180
G.L. in m	50.70	50.60	60.60	51.10	51.20	51.00	50.00

4c) Elaborate the importance of longitudinal section (L-section) and cross-sections in calculating earthwork quantities for a road project. (8) CO4

OR

4d) Illustrate the prismoidal formula for earthwork computation and state where it is preferred over the average end area method. (8) CO4

Question No. 5

5a) Determine a rate analysis of 12mm thick cement plaster (1:4) (8) CO5

OR

5b) Justify and Prepare the standard format rate analysis for the following item of work - brickwork in a cement mortar 1:6 (take a brick size as 19 cm × 9 cm × 9 cm). (8) CO5

5c) Draft the detailed specifications for Plain Cement Concrete (PCC) used in foundations and flooring. (8) CO5

OR

5d) Prepare detailed specifications for painting work, including primer, putty, number of coats, and surface preparation. (8) CO5

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