

Mid-West University
Examinations Management Office
Semester End Examinations 2081

Bachelor level/ B.E. Civil/ 5th Semester

Time: 3 hours

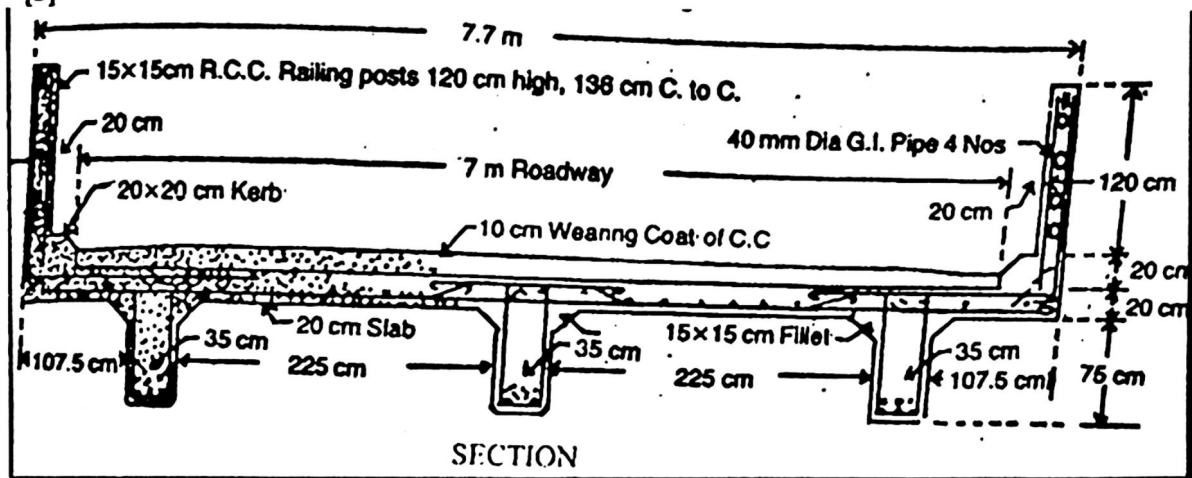
Subject: Estimating and Valuation (CE324)

Full Marks: 50

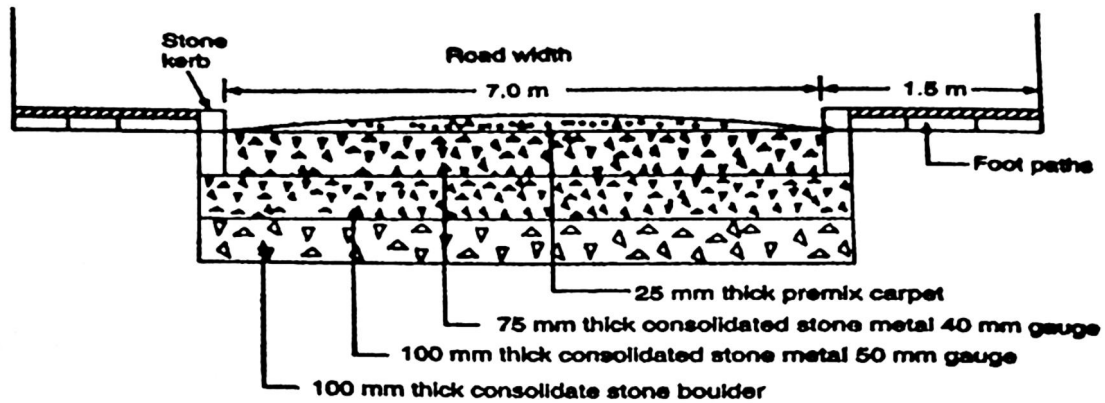
Pass Marks: 25

- Attempt all the questions
- Figures in the margin indicate full marks.
- Assume suitable values, with a stipulation, if necessary.
- Candidates are required to answer the questions in their own words as far as possible.

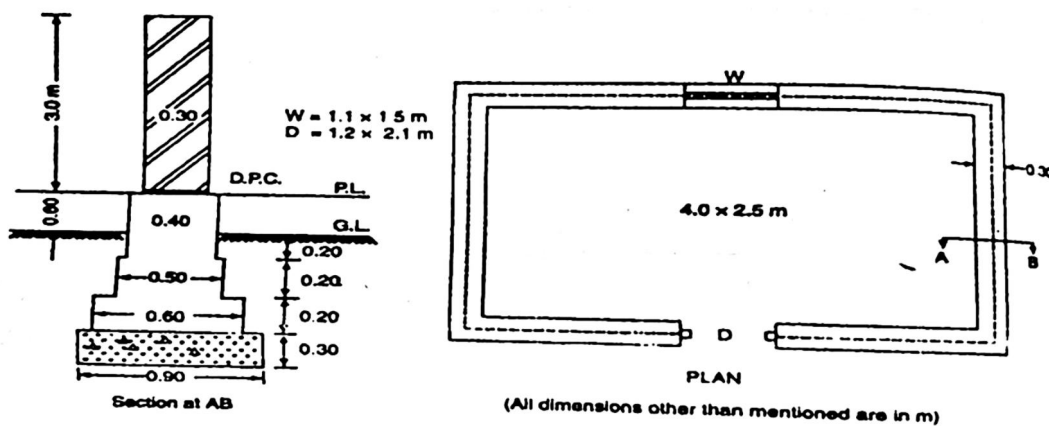
1. Prepare the working table of Quantity Sheet, Abstract of Cost and BoQ with their importance. [3]
2. Why is rate analysis crucial in project cost management? Explain the factor affecting the rate analysis. [1+2]
3. Explain the different methods used to determine the value of a property. [3]
4. What are the various methods of taking out quantities? Explain with examples. [3]
5. Define the terms: [2x1.5]
 - a) Contingency
 - b) Sanction of detail estimate
6. Write the unit of measurement of the following work and mode of payment.
 - a) Door shutter b) Half Brickwork c) Surface dressing d) Formwork e) Eave board f) wooden work in railing. [3]
7. The present value of a vibrator machine is Rs. 30000. Work out the depreciated cost of the machine at the end of 6 years, if the scrap value is Rs. 2500. Assume life of the machine is 10 years. [4]
8. Prepare rate analysis of required materials and labour for the following: [4x2]
 - a) R.C.C works (1:1.5:3) per 100 cum b) Brick Masonry work for 75 cum in (1:4)
9. Prepare a preliminary estimate of a building having a carpet area of 2500 sqm. Plinth area rate for civil work = Rs. 10,000.00 per sq. m. Cost of water supply, sanitation and electrification = 15% of building cost. The cost of AC is 3% of the building cost. The cost for extra services is 8% of total cost. The contingencies and supervision charge is 8% of the total cost. [4]
10. Estimate the quantity of R.C.C. works (1:1.5:3) and reinforcements for T-beam decking including a beam for a bridge of one span of 6-metre section is given. Assume 45 cm bearing on either abutment. The mild steel reinforcements are 2.5% in beam and 1% in slab and post as in figure. [5]



11. Perform the detail estimate of quantity of 1 Km Highway as in figure. [5]



12. Estimate the quantities for the i) Earthwork in excavation ii) PCC works (1:3:6), iii) Brick masonry works (1:4) for footing and wall iv) 2.5 cm thick DPC v) Doors and Windows shutters vi) Wall and ceiling plaster (1:4) as in figure. [6]



The End

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Civil