

Eighth Semester B.E. Degree Examination, July/August 2022 Quantity Surveying and Contracts Management

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 From the given plan and the detail of Wall section estimate the following quantities and cast. Refer Fig. Q1.

- Earth work excavation for foundation at Rs 250/cum.
- Bed concrete for foundation in C.C (1:3:6) at Rs 4200/cum.
- U.C.R. Masonry for foundation and plinth in C.M. 1:6 at Rs 4300/cum.
- 2 cm thick D.P.C in C.C (1:1.5:3) at Rs 190/sqm.
- 1st class B.B.M. in C.M (1:6) for superstructure at Rs 5200/cum.
- 2.5cm C.C. over 7.5cm L.C. floor at Rs 700/sqm.

(16 Marks)

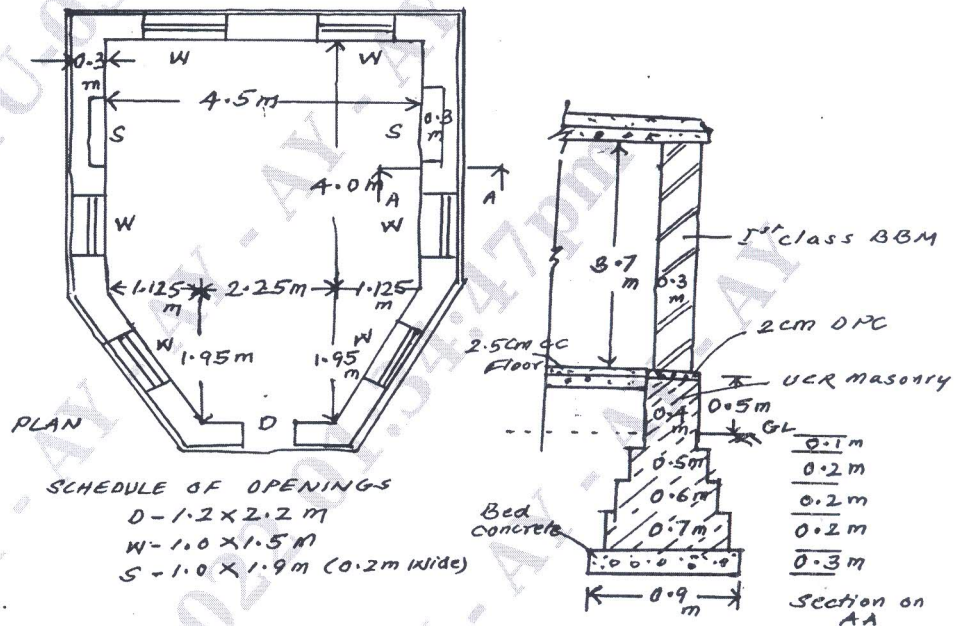


Fig. Q1.

OR

2 From the given detailed drawings Fig. Q2 of an RCC beam estimate the Quantity of concrete and steel and determine the cost at the rate of Rs 8000/cum and Rs 75 per kg respectively.

(16 Marks)

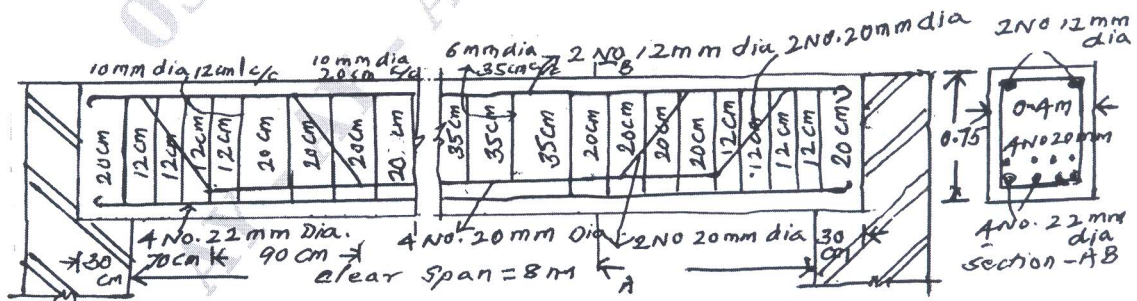


Fig. Q2

Module-2

- 3 Prepare a detailed estimate of a septic tank with soak pit from the given drawings. Also determine the cost. Septic tank shall be of 1st class brickwork in 1 : 4 C.M. at Rs 5000/cum. Foundation and floor shall be of 1 : 3 : 6 cement concrete at Rs 6000/cum. Inside of septic tank shall be finished with 12mm cement plaster at Rs 250/sqm. Floor shall be finished with 20mm cement plaster with 1 : 3 cement mortar mixed with standard water proofing compound at Rs 350/sqm. Upper and lower portion of soak pit shall be of second class brick work in 1 : 6 cement mortar at Rs 3500/cum. Middle portion of soak pit shall be of dry brick work at Rs 3000/cum. Roof covering slabs and baffle wall shall be of precast RCC at Rs 7000/cum. The length of connecting pipe from latrine seat may be taken as 3m at cost of Rs 100/m length. Assume rate of miscellaneous items suitably. Refer Fig. Q3. (16 Marks)

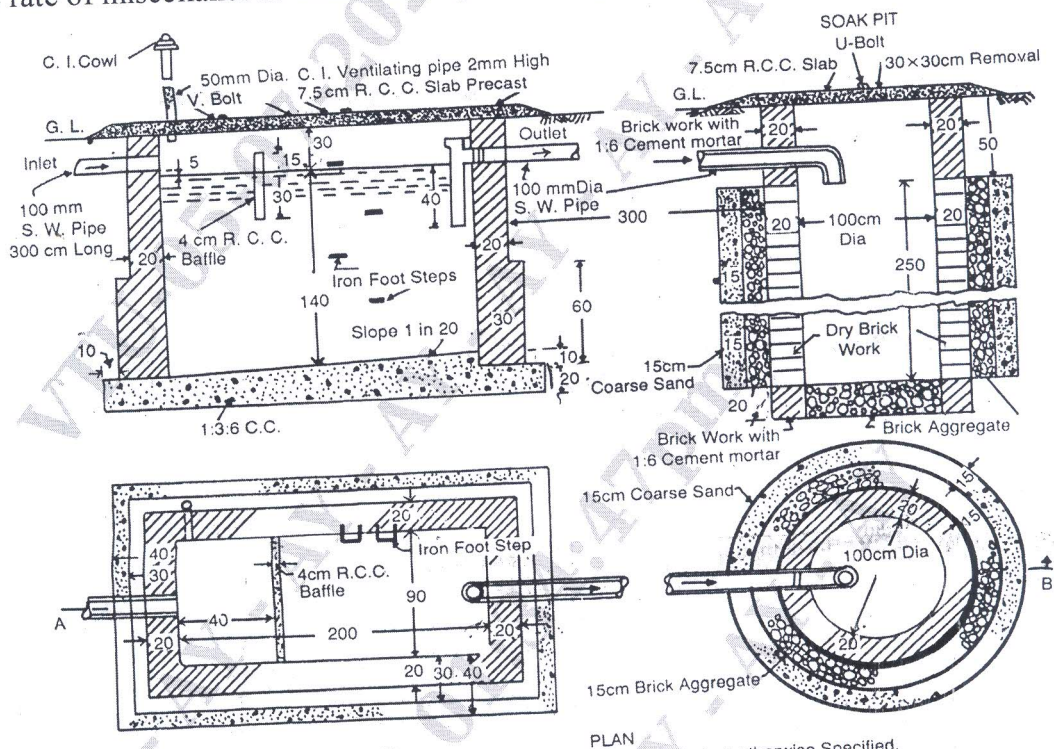


Fig. Q3

PLAN
All Dimensions in Centimetre unless otherwise Specified.

OR

- 4 a. Explain the terms lead and life with respect to earthwork. (02 Marks)
 b. Estimate the quantity of earthwork for a portion of road for 400m length from the following data : Formation width of road is 10m. Side slopes are 2 : 1 in banking and 1.5 : 1 in cutting. (14 Marks)

Chainage	25	26	27	28	29	30	31	32	33	34	35
Distance m	1000	1040	1080	1120	1160	1200	1240	1280	1320	1360	1400
R.L. of Ground m	51.0	50.9	50.5	50.8	50.6	50.7	51.2	51.4	51.3	51.0	50.6
RL of Formation	52.0	Downward Gradient 1 in 200 →									

Also draw the longitudinal section and typical cross sections.

Module-3

- 5 a. Write detailed specifications of Earthwork excavation for foundation. (05 Marks)
 b. Write detailed specifications of R.C.C. in C.C. (1 : 2 : 4) for beams and slab. (05 Marks)
 c. Analyse the rate of U.C.R. masonry for foundation in cement mortar (1 : 6). (06 Marks)

OR

- 6 a. Analyse the rate of First class burnt brick masonry for super structure in CM (1 : 6). (05 Marks)
 b. Analyse the rate of Bed concrete for foundation in C.C. 1 : 3 :6. (05 Marks)
 c. Write detailed specifications of Ist class burnt brick masonry for superstructure. (06 Marks)

Module-4

- 7 a. Explain the terms contract and contractor. Discuss various method of contract. (10 Marks)
 b. Explain the terms 'Earnest Money Deposit' and 'Security Deposit'. (06 Marks)

OR

- 8 a. What is a Tender? Briefly explain the contents of Tender Notice. (08 Marks)
 b. Briefly explain Law of Contract as per Indian Contract Act 1872. (08 Marks)

Module-5

- 9 a. Explain briefly the following terms :
 i) Penalty to contractor ii) Termination of contract iii) Liquidated damages
 iv) Extension of time of contract. (08 Marks)
- b. A colonizer intends to purchase a land of 100000 sqm area located in the suburb of a city to develop into plots of 700 sqm each after providing necessary roads, parks and other amenities. The current sale price of similar plots in the neighborhood is Rs 20000/- per sqm. The colonizer wants a profit of 20%. Workout the maximum price of the land at which the colonizer may purchase the land. The outgoings may be considered as follows :
 i) Cost of improving land , leveling , dressing Rs 4/sqm.
 ii) Cost of providing roads, drains , water supply , electricity Rs 8/sqm.
 iii) Engineers and architects fees 3% of sale price.
 iv) Other miscellaneous expenses at 1% of sale price.
 v) Colonizer profit 20% on sale price. (08 Marks)

OR

- 10 a. Explain valuation and its purpose. Mention different methods of valuation and explain any three methods. (10 Marks)
- b. A building costing Rs 70,00,000/- has been constructed on a free hold land measuring 100 sqm recently in a big city. Prevailing rate of land in the neighborhood is Rs 30,000 per sqm. Determine the net rent of the property, if the expenditure on all outgoings including Sinking Fund is Rs 2,40,000/- per annum. Work out also the gross rent of the property per month. The owner wants a net return of 6% on building construction and 4% on the cost of land. (06 Marks)

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