USN | | | | | | | | | |
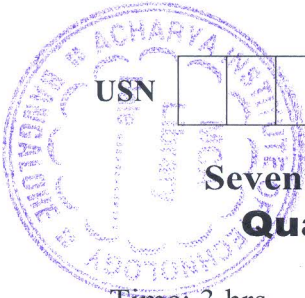
18CV71

Seventh Semester B.E. Degree Examination, Dec.2023/Jan.2024
Quantity Surveying and Contract Management

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Assume missing data (if any) suitably.

Module-1

1   The detail of two room building are shown in Fig.Q.1. Estimate quantities and cost of the following items of work:
   i)   Earthwork excavation in foundation at 300 Rs/m³.
   ii)   Lime concrete in foundation at 2500/m³
   iii) First class Brickwork in CM (1:6) in foundation and plinth at 1800/m³.
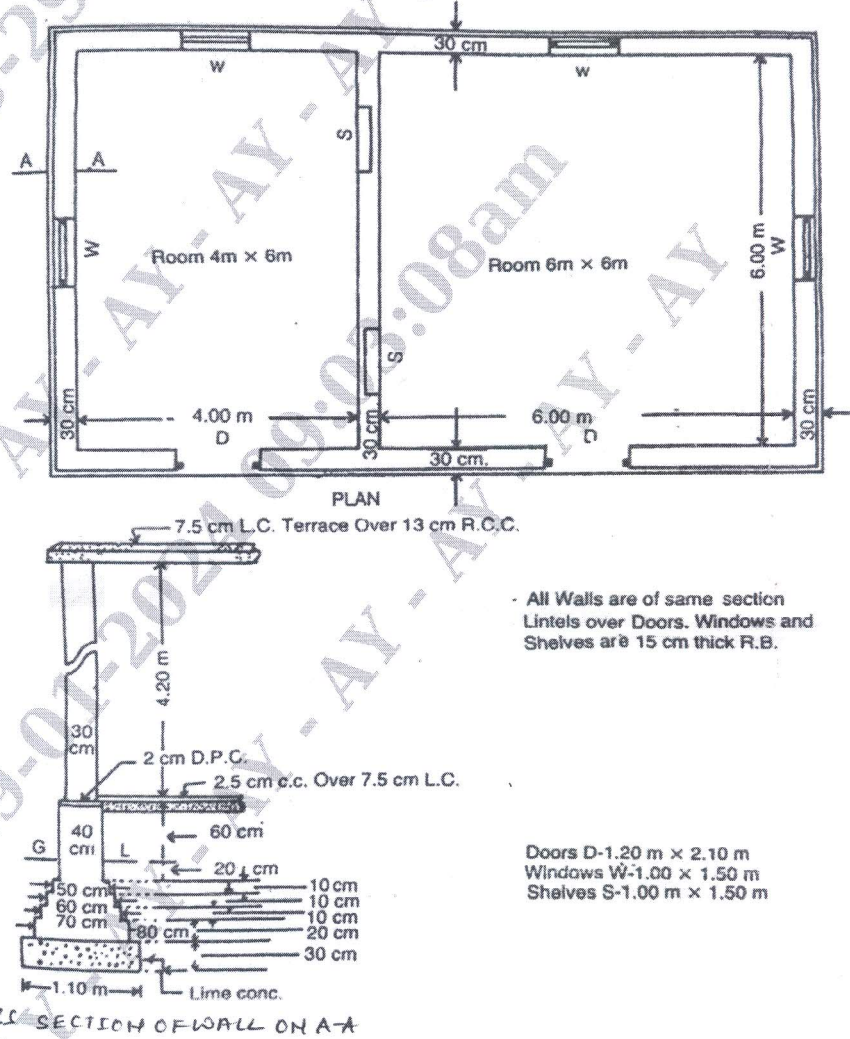   iv)   First class Brickwork in Lime mortar in superstructure at Rs.2000/m³.   **(20 Marks)**

Fig.Q.1

OR

2   What are the different types of Estimates?   Explain any four different types of Estimates.

(20 Marks)

Module-2

3   The details of man hole is as shown in Fig.Q.3. Estimate the quantities for the following item of work:

i)   Earthwork excavation in foundation
ii)   Cement concrete 1:3:6 floor and foundation
iii) First class brick work with CM 1:4
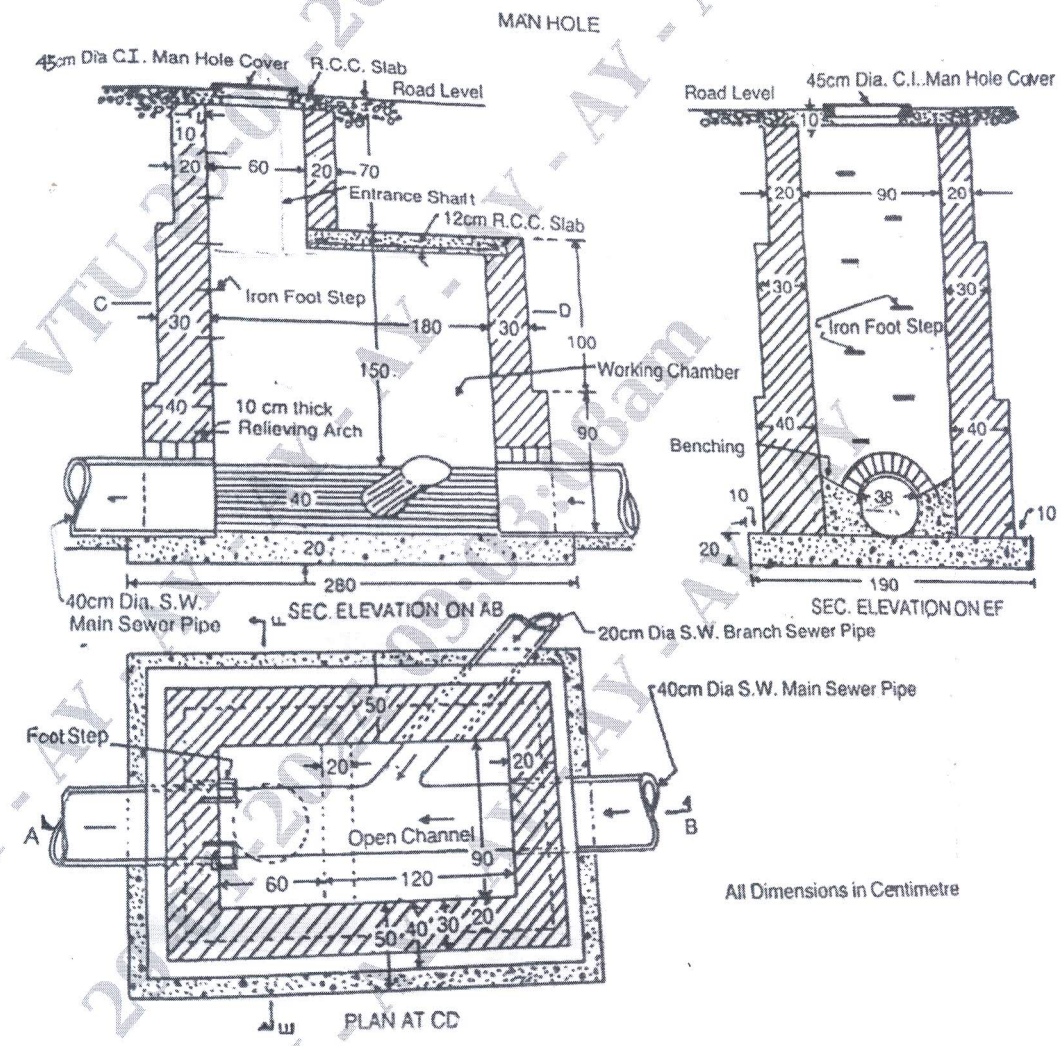iv)   20mm thick cement plaster 1:3 in floor and channel.   (20 Marks)

MAN HOLE

Fig.Q.3

OR

4 Estimate the quantity of earthwork in banking and cutting by mid sectional area method for a portion of road from the following data:

Distance in 'm'	0	100	200	300	400	500	600	700	800	900	1000	1100	1200
R.L of ground	114.00	114.60	115.00	115.20	116.10	116.50	118.00	118.25	118.10	117.80	117.75	117.80	119.20
R.L of formation	115.0	Upward gradient of 1 in 200 upto 600m						Downward gradient of 1 in 400					

Formation width of road is 10m. Side slope 2:1 in banking and 1.5:1 in cutting. **(20 Marks)**

Module-3

5 Write detailed technical specification for the following:
i) 12mm thick plastering for walls with CM1:6
ii) First class brick masonary for super structure CM1:4
iii) Earthwork excavation for foundation
iv) Mosaic/Terrazo flooring. **(20 Marks)**

OR

6 Carryout the rate analysis for the following:
i) Cement concrete CC 1:2:4 for RCC works.
ii) R.C.C. $1:1\frac{1}{2}:3$ for roof slab.
iii) 1st class BBM in CM1:6 for superstructure.
iv) 20mm thick DPC with CM1:5. **(20 Marks)**

Module-4

7 What are the different types of contract? Explain any four types of contracts? **(20 Marks)**

OR

8 Explain the procedure of tendering and award of works in civil engineering projects.
(20 Marks)

Module-5

9 Write short notes about any four of the following:
i) Performance security
ii) Breach of contract
iii) Mobilization and equipment advances
iv) Contract management
v) Liquidated damages. **(20 Marks)**

OR

10 a. Explain the methods of valuation. **(10 Marks)**
b. A building of replacement value of about Rs.7,00,000/- stands on a main road on a leasehold plot. The ground rent per annum is Rs.2950/-. The building is of R.C.C. framed structure type. It is estimated that the building will have a future life of 70 years. The rent of the building is Rs.4000/- per month. The taxes payable are 18% of the gross rent and insurance premium is 0.5% of the gross rent. Assuming suitable figures for other items of the usual outgoings. Determine the capitalized value of the property on the basis of a 5% net yield. The S.F coefficient for the replacement of the capital is 70 years at 3% is 0.0043. **(10 Marks)**

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