

Seventh Semester B.E./B.Tech. Degree Examination, June/July 2026
Estimation and Contract Management

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.

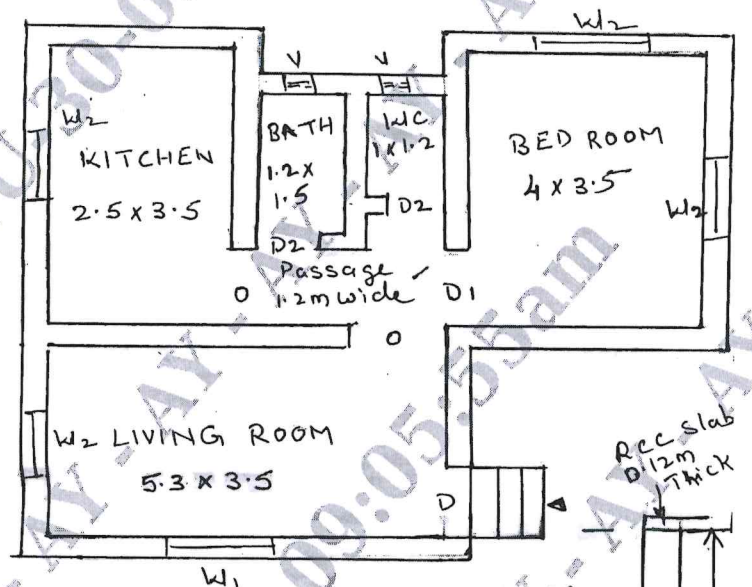
2. M : Marks, L: Bloom's level, C: Course outcomes.

Module - 1

M	L	C
20	L3	Q.1

The details of residential building are as shown in Fig Q1. Estimate the Quantities and the cost of the following items of work.

- Earthwork excavation for foundation in ordinary soil at Rs 250/m³
- Cement concrete bed 1:4:8 for wall foundation at Rs 4200/m³
- Size stone Masonry SSM in CM 1:8 for footing and basement foundation at Rs 4300/m³
- First class BBM (Burnt Brick Masonry in CM 1:6 at Rs 5000/m³

**Schedule of openings**

D	1.2 x 2.1
D ₁	1.0 x 2.1
D ₂	0.8 x 2.1
W ₁	2.0 x 1.3
W ₂	1.5 x 1.3
V	0.6 x 0.4
O	1.2 x 2.1

All dimensions in
meters

Fig Q1

OR

Q.2	What is an Estimate? Explain briefly purpose and the different types of estimates (any three)	20	L2	CO1
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Module – 2

Q.3	The details of septic tank are given in Fig Q3. Find the quantities of the following items of works : - Earthwork excavation for foundation - PCC bed concrete in 1:4:8 - Constructing burnt brick masonry in CM 1:4 for side walls - RCC (1:2:4) for cover slab for septic tank - Plastering to inner walls	20	L3	CO2
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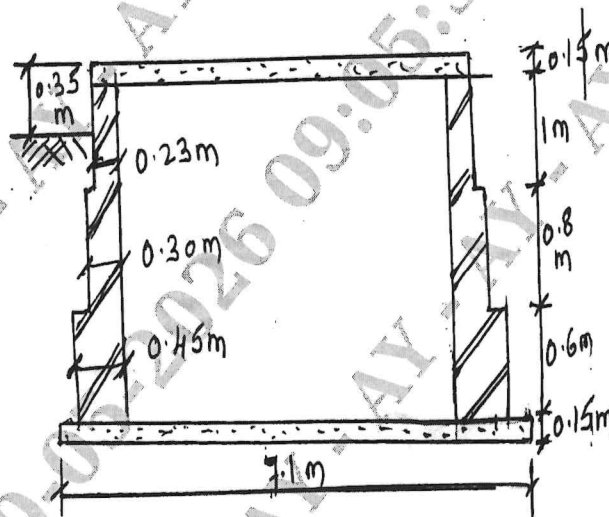
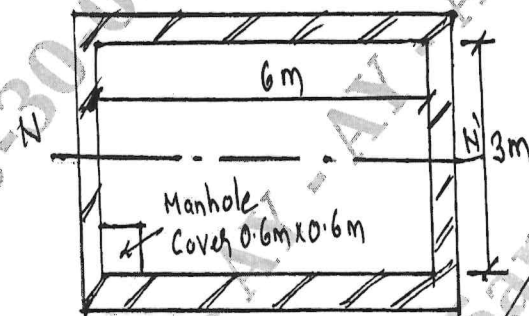


Fig Q3

OR

Q.4	Estimate the quantities and cost of Earth work for a portion of the road from the following data : Formation width of the road is 10 m side slopes 2:1 in filling. The cost of filling is Rs 80 per cu.m The formation wall of 0th chainage is 106.8 <table><tr><td>RL of FL</td><td>106.8</td><td colspan="6">down gradient 1 in 100</td></tr><tr><td>RL of GL</td><td>105.42</td><td>104.3</td><td>104.8</td><td>104</td><td>102.9</td><td>102</td><td>102.6</td></tr><tr><td>Ch.(m)</td><td>0</td><td>50</td><td>100</td><td>150</td><td>200</td><td>250</td><td>300</td></tr></table>	RL of FL	106.8	down gradient 1 in 100						RL of GL	105.42	104.3	104.8	104	102.9	102	102.6	Ch.(m)	0	50	100	150	200	250	300	20	L2	CO2
RL of FL	106.8	down gradient 1 in 100																										
RL of GL	105.42	104.3	104.8	104	102.9	102	102.6																					
Ch.(m)	0	50	100	150	200	250	300																					

Module – 3

Q.5	Write the detailed specifications for the following : a) Earthwork excavation for foundation b) Burnt Brick Masonry in CM 1:6 c) Cement plastering in CM 1:4 d) Cement concrete for Roof slab in 1:2:4	20	L2	CO3
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OR

Q.6	Workout from first principle the rate analysis for following items a) PCC 1:4:8 for foundation using 40 mm and downsize aggregate b) RCC 1:1.5:3 for roof slab c) Coursed rubble masonry in CM1:6 d) 12 mm thick plastering in wall in CM 1:4	20	L3	CO3
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Module – 4

Q.7	a.	List the different types of contracts and explain briefly any two types of contracts.	10	L2	CO4
	b.	What is Tender? Explain the notice inviting tender.	10	L2	CO4

OR			
Q.8	Write short notes on the following : i) Elements of standard tender documents ii) Administrative approval iii) Prequalification iv) Engineering procurement Construction and Build Operate and Transfer Contract.	20	L2 CO4
Module – 5			
Q.9	Explain briefly the following : i) Earnest Money and Security Deposit ii) Sinking Fund iii) Liquidated damages and bonus iv) Breach of contract	20	L2 CO5
OR			
Q.10	What is Valuation? Explain the different methods of valuation of buildings briefly.	20	L2 CO5
