R22 Regulation *Subject code: 4E7AA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Regular/Supplementary Examinations, October 2026

ESTIMATION & COSTING

(Civil Engineering)

Maximum Marks: 60 Date:26.10.2026 Duration: 3 hours

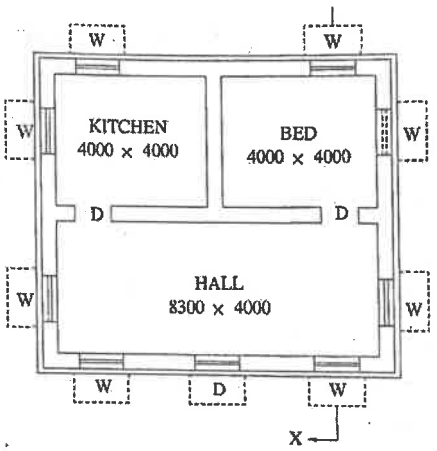
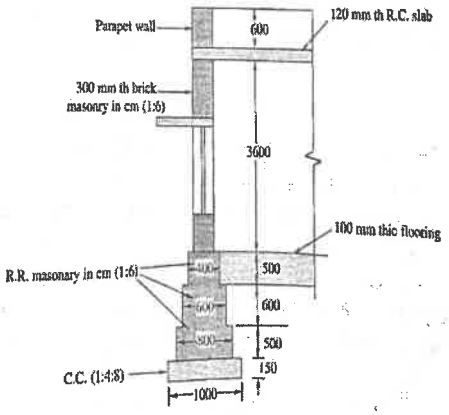
Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

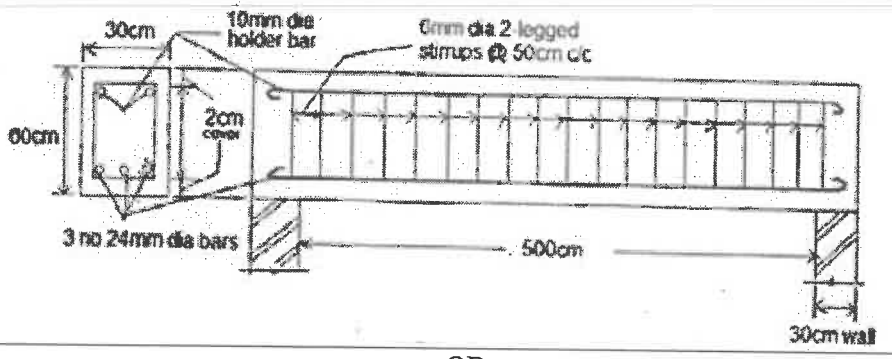
Part-A

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	BTL
1.a)	Which data is required to prepare the estimations.	1M	1	L1
b)	Mention the units for Plastering and Fencing.	1M	1	L1
c)	What are the methods in detailed estimation?	1M	2	L1
d)	What is Lead in earth work calculations?	1M	2	L1
e)	Write the importance of specifications.	1M	3	L1
f)	What is rate analysis?	1M	3	L1
g)	What is Hook allowance in beam reinforcement?	1M	4	L1
h)	What is the importance of M-Book?	1M	4	L1
i)	Write the types of valuation of buildings.	1M	5	L1
j)	What is lease hold and free hold property?	1M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	Define estimate. Explain in detail about the different types of estimates.	10M	1	L2
	OR			
3	Prepare a plinth area estimate of building with total plinth area of is 340 sq.m, given that, i) Plinth area rate Rs. 9500 per sq.m ii) Architectural appearance @1½ % of building cost. iii) Electrification @ 14% of building cost iv) Water supply and sanitary @ 5 % of building cost. v) contingencies @ 3%. vi) Supervision charges @ 8%.	10M	1	L3

4	Prepare a detailed estimate for the following items of work from the below diagram. a) Earthwork excavation for foundation b) RR Masonry in cement mortar (1:6) for footing c) Brickwork in foundation and plinth.  PLAN  	10M	2	L3
	OR			
5	Explain the types in detailed estimation and write the differences between detailed estimation and abstract estimation.	10M	2	L2
6	Prepare the rate analysis for Cement concrete of ratio 1:4:8. Assume necessary data.	10M	3	L3
	OR			
7	Explain the following terms. a) Cost of material at source b) Cost of material at site c) Contingent charges d) Lead charges	3M 3M 2M 2M	3	L2
8	The longitudinal section and cross section of a simple beam of clear span 5 m. The thickness of supporting wall is 30 cm is given below. Work out total quantity of steel reinforcement and prepare bar bending schedule. Assume any suitable data if required.	10M	4	L3

				
	OR			
9	Explain in detail about various types of contracts.	10M	4	L2
10	What is the purpose of valuation and explain the types of valuation.	10M	5	L2
	OR			
11	Explain the following: i) Gross income ii) Sinking found iii) Capitalized value	 4M 3M 3M	5	L2