



R18 Regulation

Subject code: 2P7AA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Supplementary Examinations, November 2023

ESTIMATION & COSTING
(Civil Engineering)

Maximum Marks: 70

Date: 11.12.2023 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 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

(10x2M=20 Marks)

1	What is an Estimate?	L1
2	List any two types of estimates	L1
3	What is the need of specification?	L1
4	Write any two objectives of Specifications?	L1
5	List out the methods of detailed estimate?	L1
6	Write any two methods for calculating Volume of earthwork for roads and canals.	L1
7	What is bar bending schedule?	L1
8	Write the IS code provisions for Earthwork and Brick Masonry with title	L1
9	Write short note on Market value.	L1
10	State methods of calculating depreciation	L1

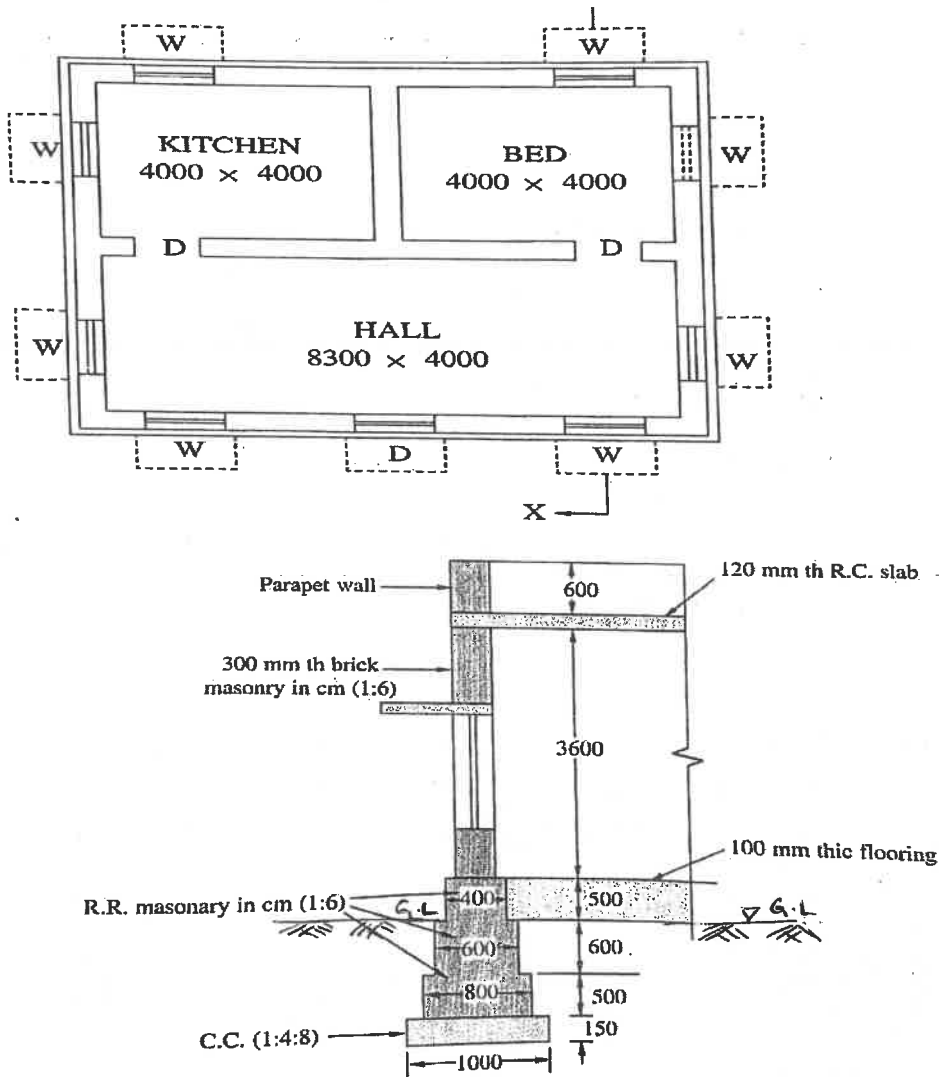
Part-B

Answer All the following questions.

(5X10M=50Marks)

11	What is approximate estimate? Explain different methods of approximate estimates. (10M)	L2
	OR	
12	Explain the different methods of working out quantities in detailed estimates. (10M)	L2
13	What are general specifications for 1 st class brick Masonry? (10M)	L1
	OR	
14	Prepare a Rate Analysis for the following items a. Brick Masonry in Lime Mortar (1:6) Prop. (5M) b. PCC (1:2:4) prop. (5M)	L4
15	Prepare a detailed estimate for the following items of work: (10M) a. Earthwork excavation for foundation	L4

b. RR Masonry in cement mortar (1:6) for footing



OR

16 The road has the following data

Chainage in 'm'	0	30	60	90	120	150	180	210	240
Ground level in 'm'	30.80	31.25	31.85	32.25	33.00	33.65	34.50	34.82	35.50

The formation level at chainage Zero is 30.00m and having a uniform gradient. The top width is 10m and side slopes 2:1. Assuming the transverse slope of the ground is level. Calculate the volume of earthwork by Prismoidal Rule. (10M)

17 Estimate the quantity of steel for any type of RCC Simply supported beam with an illustrative example and prepare a bar bending schedule. (10M)

	OR	
18	What are the methods of measurements of civil engineering works? (10M)	L1
19	<p>a) What is Valuation? What is the purpose of valuation? (5M)</p> <p>b) A pumping set with a motor has been installed in a building at a cost of Rs.2500/-. Assuming the life of the pump as 15 years, workout the amount of annual installment of sinking fund required to be deposited to accumulate the whole amount of 4% compound interest. (5M)</p>	L3
	OR	
20	A residential building of 220 sq.m plinth area is situated on a plot measuring 450 sq.m. The building is let out for a rent of Rs. 6,000 per month. The cost of the land is Rs.3,000 per sq.m. The usual outgoings are estimated as 20% of gross rent. Find the capitalized value of the property for 10% net yield, assuming life of the building as 70 years. (10M)	L3

