

Code: 19CE3701

IV B.Tech - I Semester – Regular Examinations - DECEMBER 2022**ESTIMATION & COSTING
(CIVIL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This question paper contains two Parts A and B.

2. Part-A contains 5 short answer questions. Each Question carries 2 Marks.

3. Part-B contains 5 essay questions with an internal choice from each unit. Each question carries 12 marks.

4. All parts of Question paper must be answered in one place.

BL – Blooms Level

CO – Course Outcome

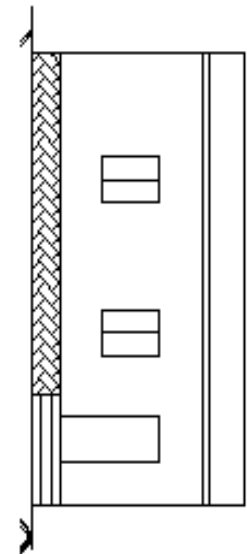
PART – A

		BL	CO
1. a)	Define Detailed estimate.	L1	CO1
1. b)	Explain Longwall and shortwall method with an example.	L2	CO2
1. c)	Mention any two quantities for rate analysis.	L2	CO3
1. d)	What information should a contract document contain?	L1	CO4
1. e)	Mention the methods of calculation of quantity of earthwork with formulas.	L2	CO5

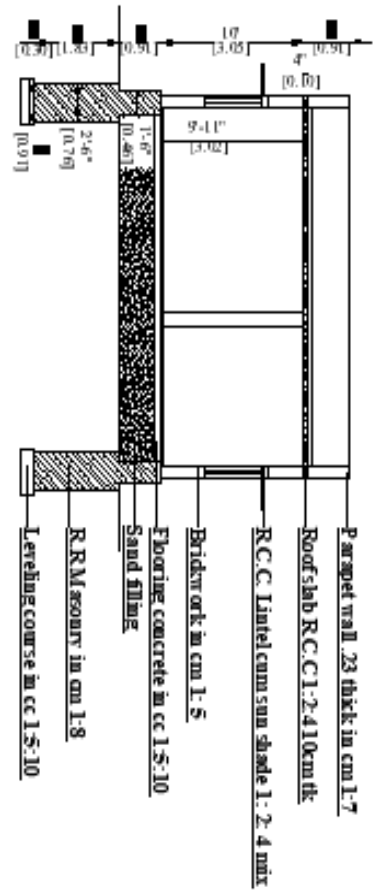
PART – B

		BL	CO	Max. Marks
UNIT-I				
2	A building consists of 150 sqm. plinth area in each floor. It consists of ground and first floor, whose heights are 3.9 m and 3.6 m respectively. Calculate the cost of the building from the given data. The rates given below for both floors. i. Cubic area rate-2000 cubic meters.	L2	CO1	12 M

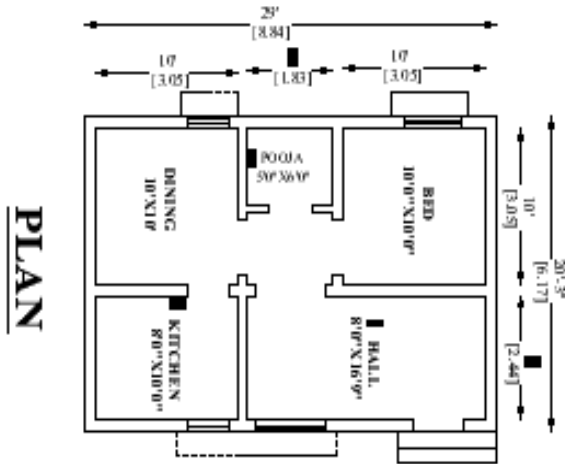
	ii. Add for architectural work 3% per cubic meter. iii. Add for water supply 5% per cubic meter. iv. Add for sanitary work 5% per cubic meter. v. Add for electrical works 6% per cubic meter. vi. Add for unforeseen items 5% per cubic meter. vii. Add for supervision 9.5% per cubic meter.				
OR					
3	a)	Mention the detailed specifications of earthwork excavation in foundations.	L2	CO1	6 M
	b)	Explain briefly about the detailed estimates with an example.	L2	CO1	6 M
UNIT-II					
4	Estimate the quantities of work of the following items for construction of the building shown in fig. by long wall & short wall method. Assume suitable data Missing. a. Earth work in excavation for foundation b. Brick Masonry above ground level, c. 12mm thick Plastering inside and outside the building.		L3	CO2	12 M



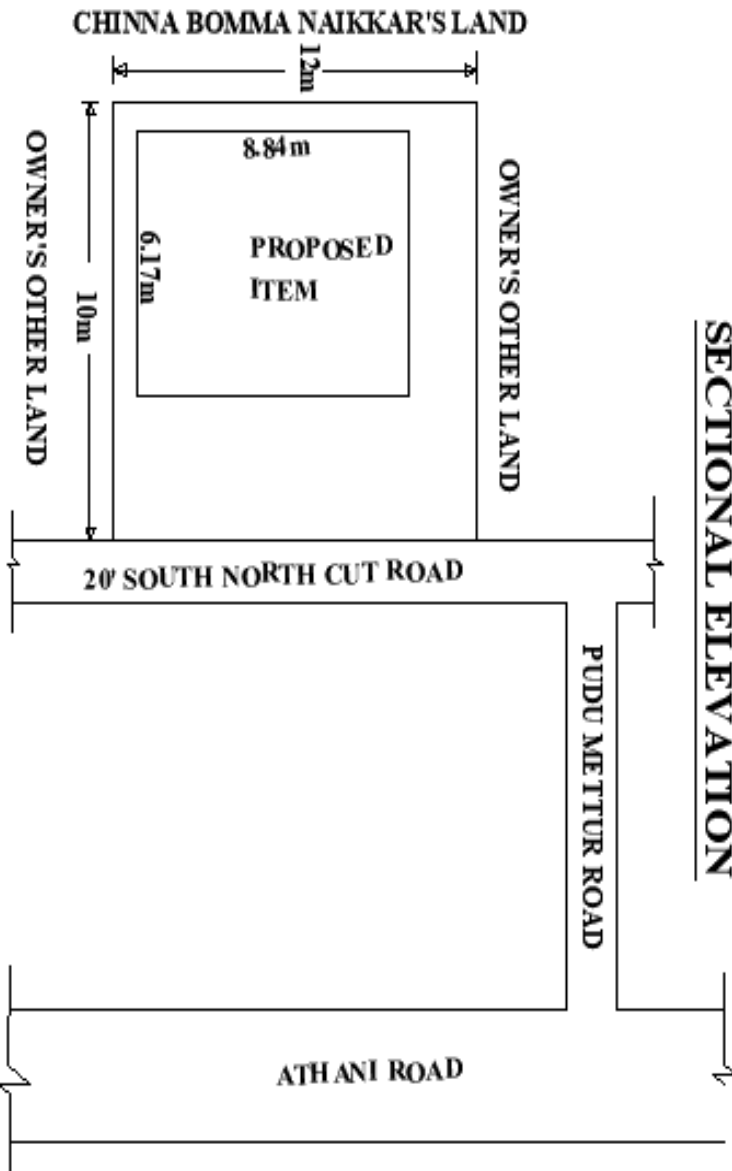
ELEVATION



SECTIONAL ELEVATION

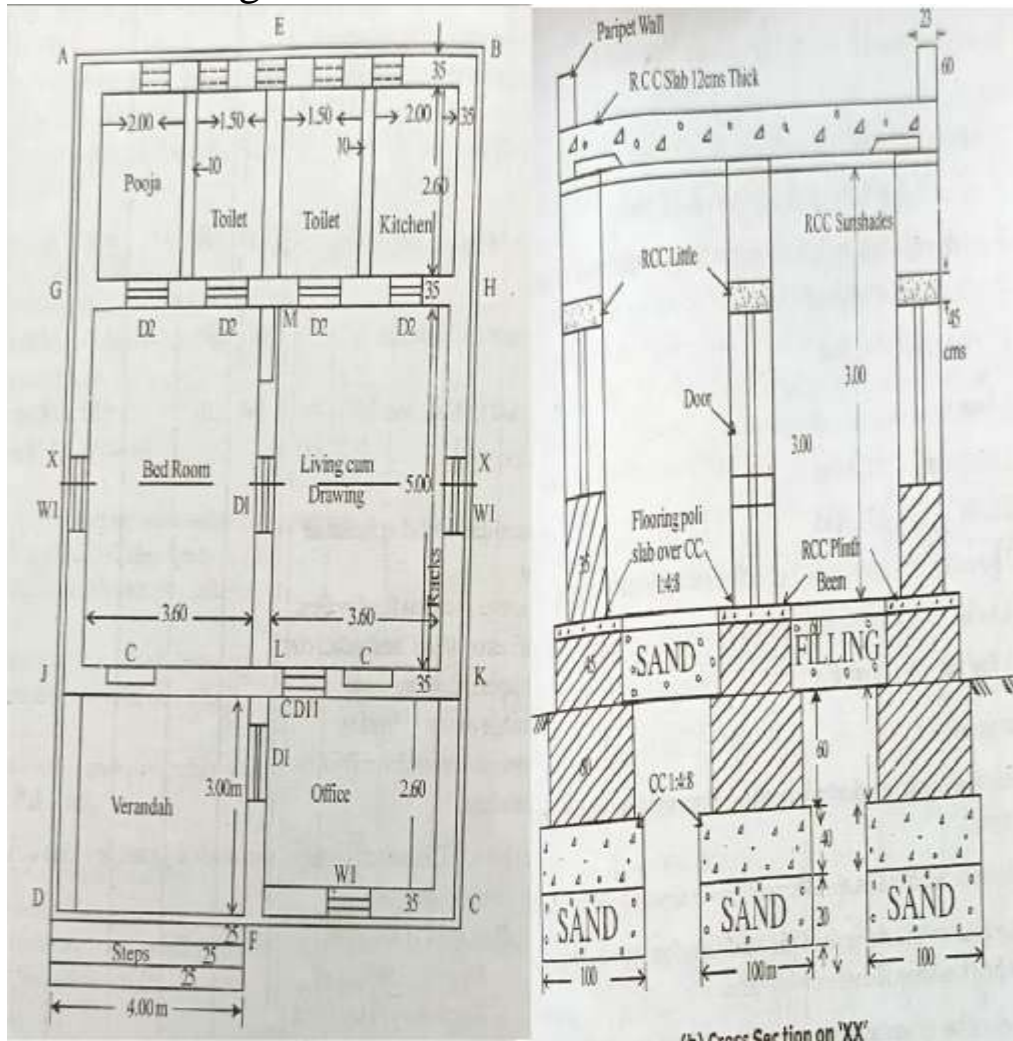


PLAN



OR

- 5 Estimate the quantities of work of the following items for construction of the building shown in fig. by Centre line method. Assume suitable data Missing.
- Earth work in excavation for foundation
 - Brick Masonry above ground level,
 - 12mm thick Plastering inside and outside the Building.

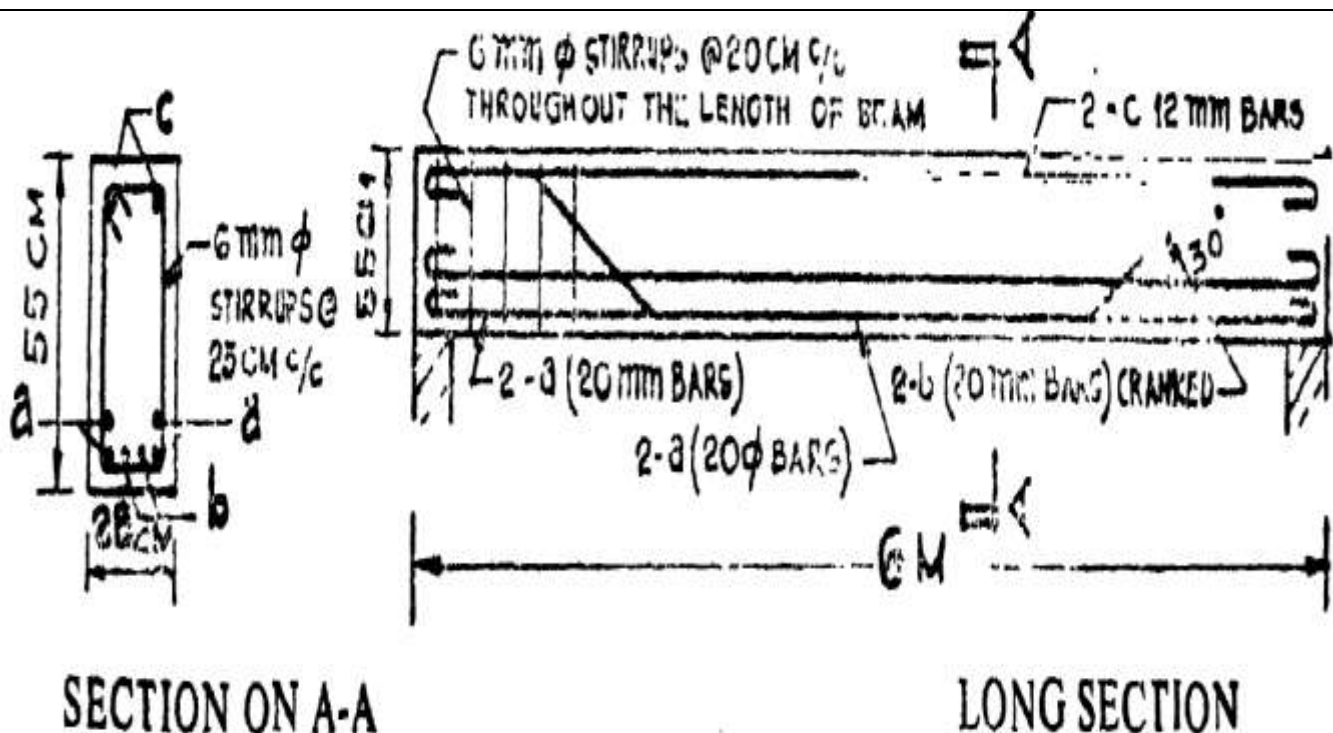


L3 CO2 12 M

UNIT-III

- 6 Prepare a schedule of bars shown in fig. assume 20mm dia. Bars weight 2.47kg/m; 12mm dia bars 0.89kg/m and 8mm dia bars 0.39kg/m.

L3 CO3 12 M



OR

7	Find the cost of the following items using rate of site, for today market rate. a) R.C.C 1:2:4 for roof slab 10 cu.m thick 10.00sq.m(with 80kgs of steel/10sq.m) b) R.C.C 1:2:4 for beams and lintels 5.00 cu.m with 120kg Steel per cu.m.	L3	CO3	12 M
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UNIT-IV

8	a)	Explain the types of Engineering Contract and their advantages and disadvantages.	L3	CO4	6 M
	b)	Explain about Retention money.	L2	CO4	6 M

OR

9	a)	The capitalized cost of a building is Rs. One Crore, including all fittings of first-class construction. If the rate of interest is 9%. Calculate net return from the property. Assume out goings as 18% on gross income.	L3	CO4	6 M
	b)	Explain the methods of valuation.	L2	CO4	6 M

UNIT-V

10	Estimate the quantity of earth work between 0 chainage and 120m chainage at equal intervals of 20.00m.							L3	CO5	12 M	
	Distance or Chainage in metres	0	20	40	60	80	100				120
	R.L of ground	78.10	77.74	77.80	78.20	80.75	80.20				79.98
	The formation level at zero chainage is 78.50 and the formation has a rising gradient of 1 in 100. The formation width of road is 12m and side slope in filling is 2:1 and cutting 1:1. Draw longitudinal section of the road for the length in question.										
OR											
11	a)	Write report on estimate of construction of residential building.						L3	CO5	6 M	
	b)	Write a report on the estimate of construction of a road.						L3	CO5	6 M	