R18

ANURAG Engineering College
(An Autonomous Institution)
IV B.Tech I Semester Supplementary Examinations, April – 2024
ESTIMATING AND COSTING
(CIVIL ENGINEERING)

Time: 3 Hours   **Max.Marks:75**

Section – A (Short Answer Type Questions)   (25 Marks)
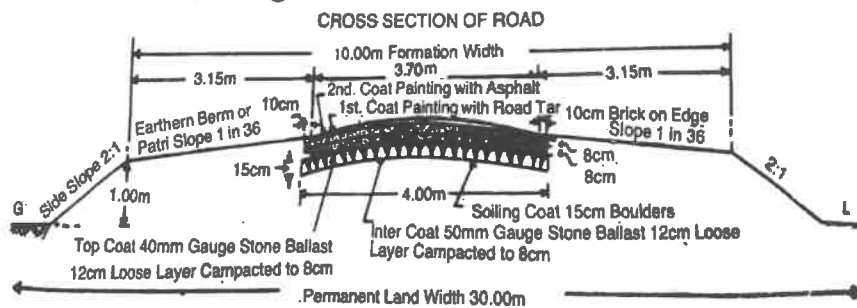
Answer All Questions

		CO's	B.T. Level	Marks
1.	Define long wall and short wall method of estimation.	CO1	L1	2M
2.	State the necessity of accuracy in estimate preparation.	CO1	L1	3M
3.	A 16mm dia bar of length 5m used in column, calculate the weight of bar.	CO2	L1	2M
4.	Draw the neat sketches for standard hook and bent up bars	CO2	L1	3M
5.	State the purpose of rate analysis.	CO3	L1	2M
6.	Describe the requirement of labour for RCC work and brickwork.	CO3	L2	3M
7.	Define detailed specification.	CO4	L1	2M
8.	Explain the method of preparation of specifications.	CO4	L2	3M
9.	Define item rate contract.	CO5	L1	2M
10.	List components of a typical tender notice.	CO5	L1	3M

Section – B (Essay Questions)
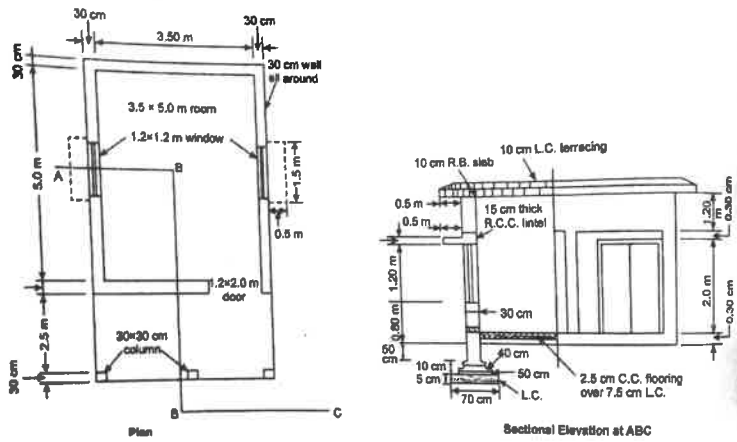**Answer All Questions, each question carries equal marks.**   **5 X 10M = 50 Marks**

11.A)	Prepare a detailed estimation for the construction of a new state highway for 1km length. The formation width of road is 10m, average height of bank is 1m and slope 2:1. The metalled width is 3.7m three coats of metaling are to be provided as shown in figure.	CO1	L3	10M

CROSS SECTION OF ROAD

OR

B)	Estimate the quantities of the following items of a two roomed building from the given figure. i) Earthwork in excavation in foundation, ii) lime concrete in foundation, iii) 1st class brickwork in cement mortar 1:6 in foundation and plinth.	CO1	L3	10M

Plan — **Sectional Elevation at ABC**

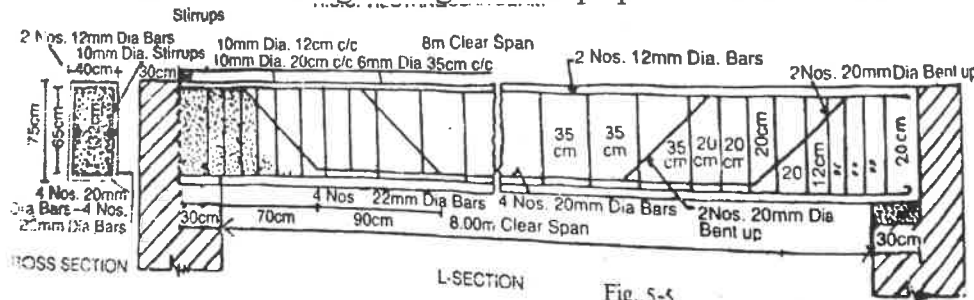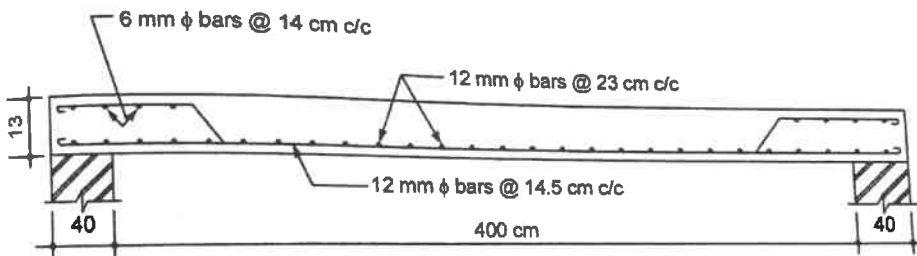|			
12.A)	Prepare a detailed estimate of a RCC beam of 8m clear span and 75cm X 40cm in section from the given figure. Also prepare schedule of bars.	CO2	L3	10M

Fig. 5-5

OR

B)	The figure shows the section along the shorter span of a room of size 4 X 5.5m (internal dimensions). The thickness of the slab of wall is 13cm and slab is 40cm. Prepare bill of quantities of RCC slab. Assume any dimension not given in the figure. Also prepare bar bending schedule.	CO2	L3	10M

13.A)	Analyse the rate of cement concrete of ratio 1:2:4. Assume necessary data.	CO3	L3	10M

OR

B.	Explain the importance and requirements of rate analysis, and units of measurement preparation of rate analysis.	CO3	L3	10M

14.A)	Write in detailed specifications of the following items of work. i) Cement concrete and RCC work ii) Farm work	CO4	L3	10M

OR

B)	Write the detailed specifications for damp proof course (2.5cmthick) C.C 1:1.5:3 and first-class brickwork with 1:6 cement mortar.	CO4	L3	10M

15.A)	List and explain the various types of contracts in detail.	CO5	L2	10M

OR

B)	Explain the following: i) Earnest money ii) Security money iii) M Book	CO5	L2	10M