U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

August 2024 Supplementary Examinations

Programme: B.E. **Semester: VII**
Branch: CIVIL ENGINEERING **Duration: 3 hrs.**
Course Code: 21CV7PCCSE **Max Marks: 100**
Course: Contracts, Specification and Estimation

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data if any, may be suitably assumed.

UNIT - I

1	a)	Define Estimate. Identify the various data required for preparation of an Estimate or Quantity survey.	**06**
	b)	Enumerate the essential qualities of good Estimator.	**06**
	c)	Explain briefly the Rough or Approximate Estimate.	**08**

UNIT - II

2		The details of a Manhole are shown in Fig.Q.2. Estimate the quantities and cost of the following Earth work excavation for foundation in soft soil at the rate of Rs.200/cum. Cement Concrete bed in the ratio 1:2:4 for floor and foundation at a rate of Rs.5000/cum. First Class Brick work in CM 1:4 at a rate of Rs. 7000/Cum. Internal Plastering for the walls in CM 1:4, 12mm thick at a rate of Rs. 600.00/Sqm	**20**

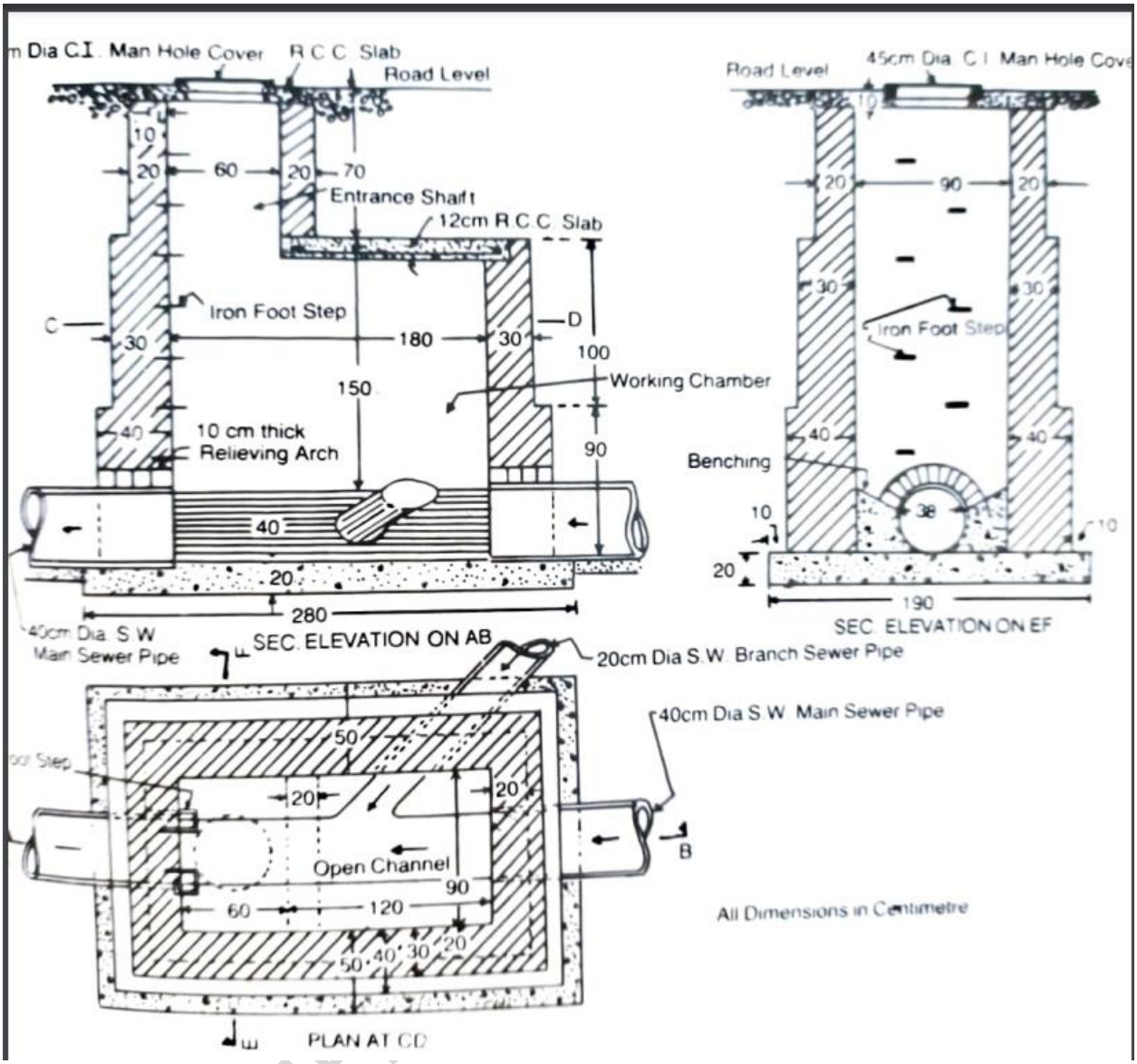

Fig.Q.2

OR

3 The accompanying fig.Q.3 shows the details of a residential building. Estimate the quantities by centre line method and cost of the following items of works. **20**

a) Earthwork excavation for foundation in hard soil at a rate of Rs. 275.00/Cum
b) Size stone masonry in footings and plinth with CM 1:8 at a rate of Rs. 4600.00/Cum
c) Internal Plastering of walls in CM 1:6, 12mm thick at a rate of Rs. 500.00/Sqm

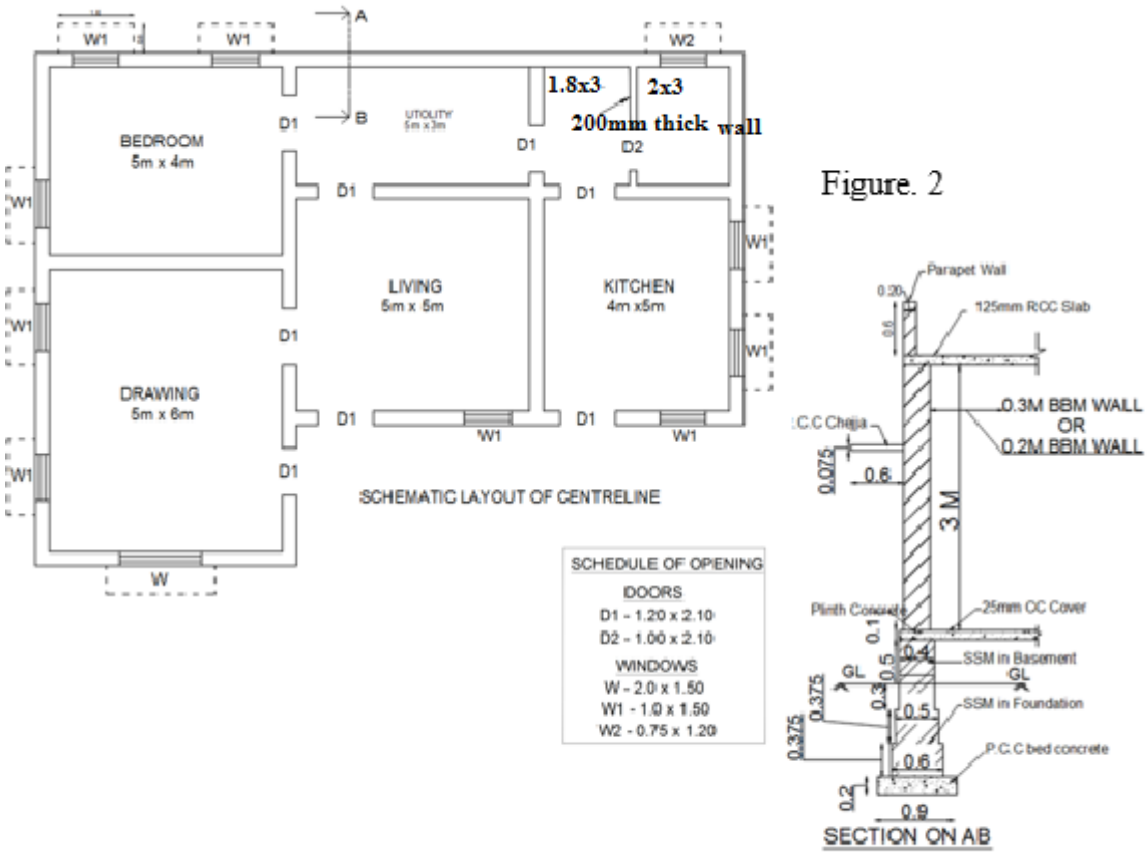

Figure. 2

Fig.Q.3

UNIT - III

4 a) Explain the procedures to arrive at the quantities of Earth work excavation for the existing ground for new Road work construction with sketches. **08**

b) Estimate the quantities of earthwork for a portion of a proposed road from the following data. **12**

Station	600	630	660	690	720	750	780	810	840	870	900
R.L of G. L.	71.20	71.25	70.90	71.25	70.80	70.45	70.20	70.35	69.10	69.45	69.70
RL of FL	70.00	Rising Gradient 1 in 200									

Proposed formation width of road is 8m, side slope 1.5:1 in cutting and 2:1 in banking. Assume there is no transverse slope. Compute the volume by using Mean area method.

UNIT - IV

5 a) Discuss detailed specifications of common items of works in Buildings. **10**

b) Workout the cost per unit (Rate analysis) for mosaic tile flooring over the base course of cement concrete 1:2:4 of 10cm thick with dry CM cushion of 5cm thick in CM 1:3. from first principles **10**

OR

6	a)	Discuss detailed specifications of I class Brick work in cement mortar 1:6.	**10**
	b)	Workout the cost per unit (Rate analysis) for plain cement concrete bed of 1:4:8 in foundation from first principles.	**10**

UNIT - V

7	a)	Summarize the process of Tendering in detail.	**10**
	b)	List and discuss the dispute resolution methods.	**10**

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