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10CV73

Seventh Semester B.E. Degree Examination, July/August 2022
Estimation and Valuation

Time: 3 hrs. Max. Marks:100

Note: *1. Answer full question from Part – A*
2. Answer TWO full questions from Part – B and Part – C.
3. Missing data, if any, may be suitably assumed.

PART – A

1 The details of a residential building are shown in Fig.Q1. Estimate the quantities and cost of the following items of work.

a. Earth work in excavation for foundation at the rate of Rs.150/m^3.
b. Coursed rubble masonry in CM 1 : 6 for footing and plinth at the rate of Rs.2500/m^3.
c. First class brick work in CM 1 : 4 for the superstructure at the rate of Rs.4000/m^3.
d. RCC(1 : 2 : 4) Roof slab at the rate of Rs. 3800/m^3
e. Plastering inside wall surface in CM 1 : 3 12mm thick at the rate of Rs.150/m^2.

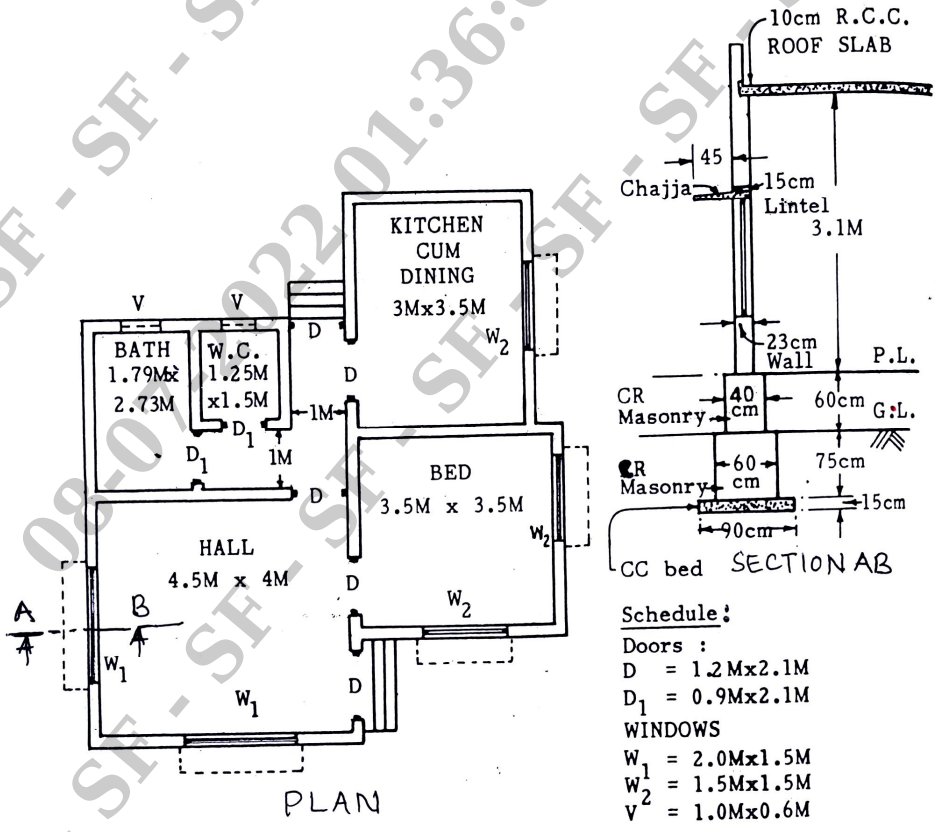

Fig.Q1 **(40 Marks)**

PART – B

2 The details of septictank shown in Fig.Q2. Estimate the quantities of the following items of work.

a. Earth work excavation in foundation
b. CC 1 : 3 : 6 in foundation
c. First class brick work in CM 1 : 4
d. RCC 1 : 2: 4 slab 10 cm thick.

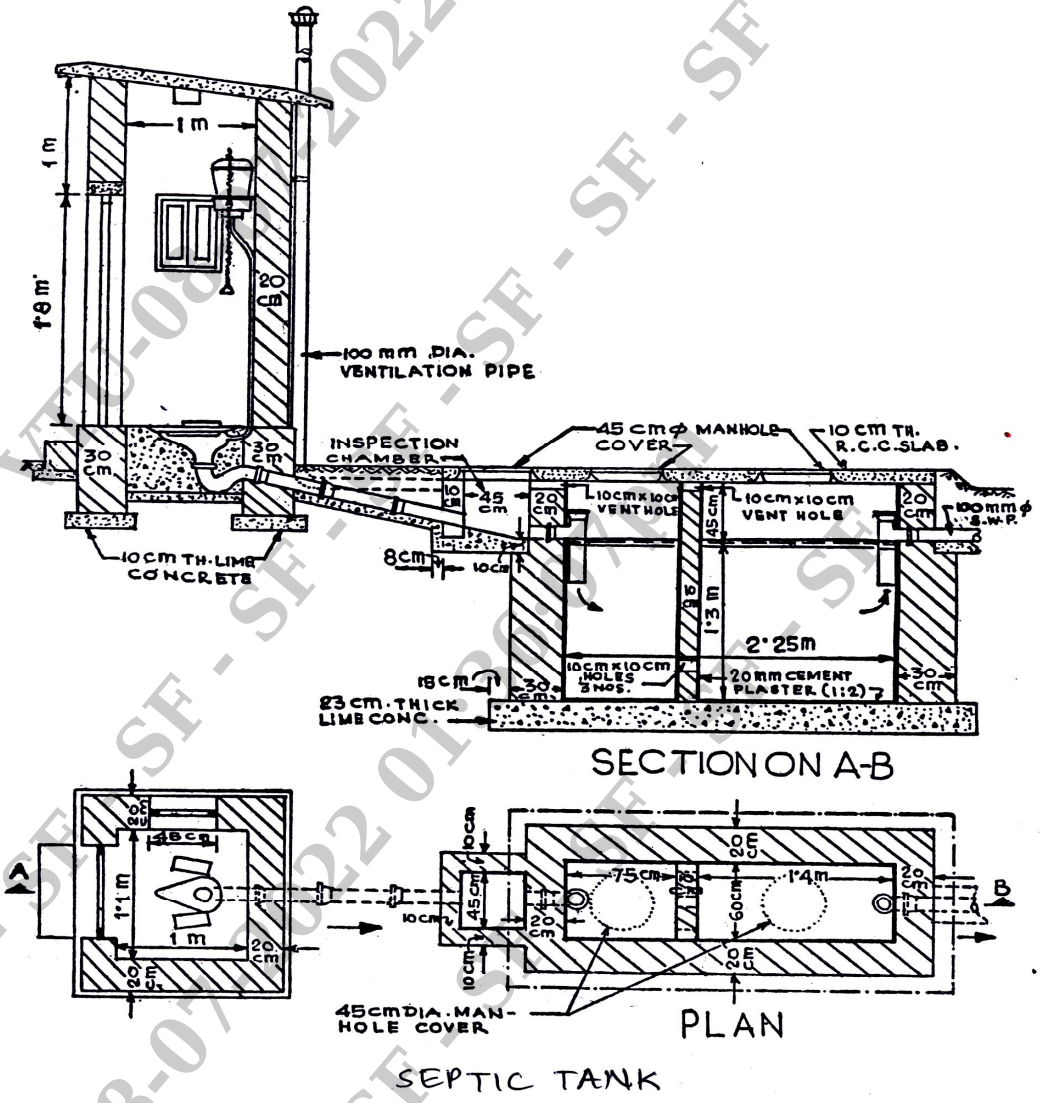

Fig.Q2 **(15 Marks)**

3 Write the detailed specifications for any three of the following :

a. Earth work in excavation in foundation trenches
b. First class brick work
c. Coursed rubble stone masonry
d. Cement plastering. **(15 Marks)**

4 a. Classify the approximate methods of estimating for building. Explain them in brief. **(10 Marks)**

b. Explain briefly factors to be considered during preparation of a detailed estimate. **(05 Marks)**

PART – C

5 Work out from first principles the rate per unit of any three of the following :

a. Cement concrete 1 : 4 : 8 with graded stone ballast 40mm down in foundation
b. 2.5cm thick cement concrete 1 : 2 : 4 damp proof course
c. Random rubble masonry in cm 1 : 6 in foundation and plinth
d. 7.5cm thick cement concrete floor 1 : 4 : 8 with over burnt brick chips. **(15 Marks)**

6 Prepare an estimate for the portion of a road from chainage 14 to 22 from the data given below :

Chainage (30m)	14	15	16	17	18	19	20	21	22
R.L of ground	108.60	109.25	109.40	108.85	108.50	107.25	106.80	107.15	107.20

The road formation is proposed at uniform falling gradient 1 in 200 passing through GL at chainage 14. The rate of earth work in cutting is Rs. 15/m^3 and banking is Rs. 10/m^3. The formation width of the proposed road is 12m. Side slopes 1½ : 1 in cutting and 2 : 1 in banking. **(15 Marks)**

7 Write short note on any three of the following :

a. Advantages and disadvantages of percentage rate contract
b. Procedure for invitation of tender for design and construction.
c. Purposes of valuation
d. Comparison between scrap value and salvage value. **(15 Marks)**

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