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21CV71

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Quantity Survey and Contract Management
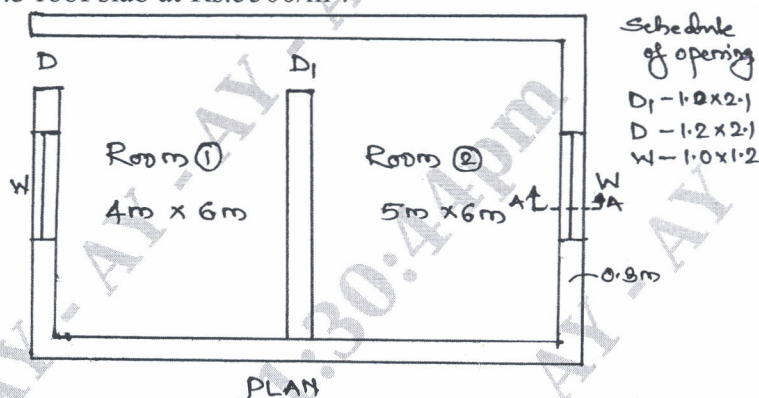
Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 Define estimate. Explain briefly purpose and different types of estimate (any three).

(20 Marks)

OR

2 The details of two room building are shown in Fig.Q.2. Estimate the quantities and cost of the following items of work:
i) Earthwork excavation for foundation in ordinary soil @ Rs.400/m^3.
ii) Cement concrete bed 1:4:8 for wall foundation @ Rs.3800/m^3.
iii) SSM in CM 1:6 for foundation and basement @ Rs.3000/m^3.
iv) Ist class BBM work for super structure in CM 1:6 @ Rs.5800/m^3
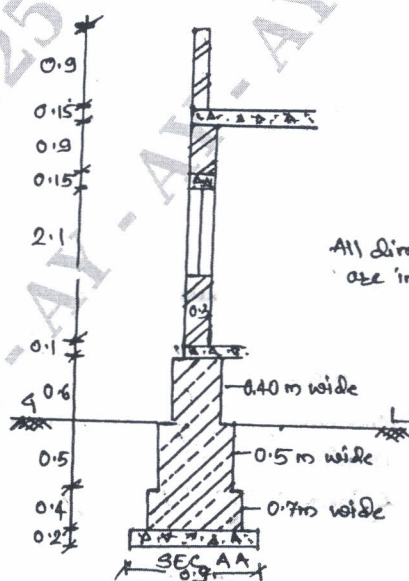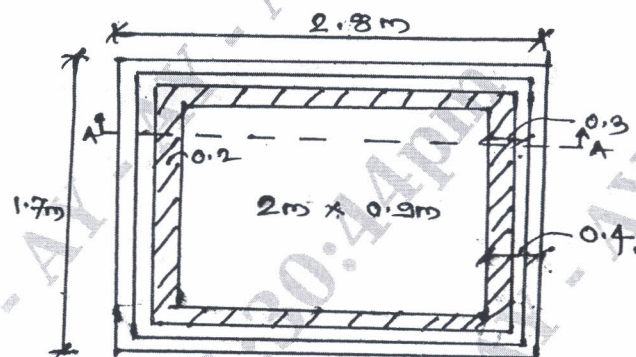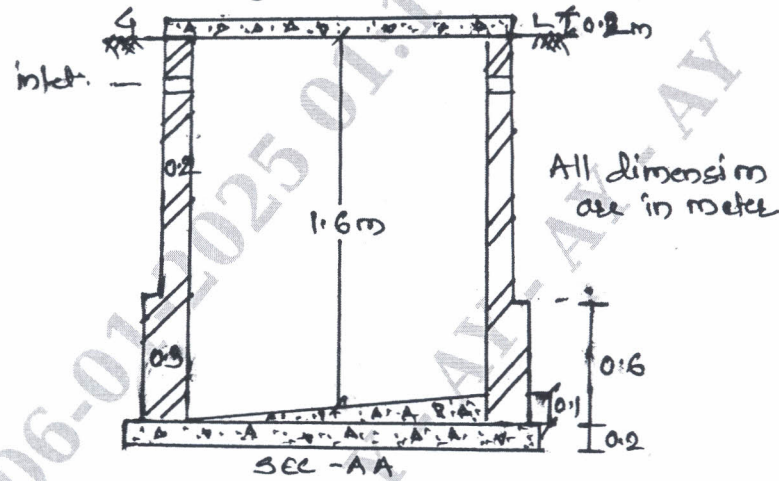v) RCC 1:1·5:3 roof slab at Rs.5500/m^3.

Fig.Q.2

(20 Marks)

Module-2

3 The details of a septic tank is as shown in Fig.Q.3. Estimate the quantities for the following items of work and work out the cost.

  a. Earth work excavation in foundation @ Rs.400/m^3
  b. Cement concrete 1:3:6 floor and foundation @ Rs.4000/m^3
  c. First class brick work with cement mortar 1:4 @ Rs.6000/m^3.
  d. 12 mm thick plaster for side walls @ Rs.200/m^2.

Fig.Q.3

(20 Marks)

OR

4 Reduced level (RL of ground along centerline of proposed road from chainage 10 to 20 chainage are given below. The formation level at the 10th chainage is 107 and the road is in down word gradient of 1 in 150 upto the chainage 14 and the gradient changes to 1 in 100 down word gradient. Formation width is 10m and side slope of banking are 2:1 (H:V). Length of chain is 30 m. Estimate the quantities and cost of earth at the rate for filling is Rs.250 and cutting Rs.140 by mid sec. method.

Chainage	10	11	12	13	14	15	16	17	18	19	20
RL of the GL	105.0	105.60	105.44	105.90	105.42	104.30	105.00	104.10	104.62	104.00	103.30
RL of FL			107.00								
Gradient	Down word 1 in 150					Down word 1 in 100					

(20 Marks)

Module-3

5 a. Define specification. Explain the objectives of writing specification. (10 Marks)
  b. List the significances of microsoft excel in estimation. (10 Marks)

OR

6 Write detailed specification for following:
  i) Bed concrete for foundation with M7.5 CC
  ii) Size stone masonary for foundation in CM 1:6
  iii) Plastering 12 mm thick with CM 1:5
  iv) Floor filling with granite in CM 1:3 (20 Marks)

Module-4

7 a. Define rate analysis. Explain the purpose of rate analysis. (10 Marks)
  b. Work out the rate analysis for R.C.C. for slab and beam in CC 1:1·5:3 and steel 1.2%. (10 Marks)

OR

8 Analyze rates from first principle for following:
  i) Ashlar masonary for foundation in CM 1:6
  ii) BBM for super structure in CM 1:6
  iii) Plastering 20 mm thick in CM 1:4
  iv) Pointing in CM 1:3. (20 Marks)

Module-5

9 a. Define contracts. Discuss the essentials of contracts. (10 Marks)
  b. Write a note on tender documents and earnest money deposite. (10 Marks)

OR

10 Write short notes on following:
  a. Administrative approval and technical sanction
  b. Nominal muster roll
  c. Security deposite
  d. Running bills. (20 Marks)

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