Code No: RT42011   **R13**   **Set No. 1**

IV B.Tech II Semester Regular Examinations, April/May - 2017
ESTIMATING, SPECIFICATIONS & CONTRACTS
(Civil Engineering)

Time: 3 hours   **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer any THREE questions from Part-A
Part-B is compulsory
Please Provide Code for Rate Analysis
Assume If any data is missing
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PART–A *(3x14=42 Marks)*

1. a) Explain principle units for various items of work in building   [7]
   b) Explain abstract estimate?   [7]

2. a) Explain the sinking fund method   [7]
   b) Give the detailed specification for lime concrete in foundation.   [7]

3. Find the rate of one cubic metre for the given item as per the rate analysis   [7]
      a) P.C.C in foundation (1:2:4)   [7]
      b) Cement motor (1:4)

4. The formation width of road embankment is 9.0m. The side slopes are 2.5:1. The   [14]
   depths along the center line of road at 50.0m intervals are 1.2,1.1,1.4,1.2,0.9,1.5 and
   1.0m.It is required to calculate the quantity of earthwork by
      (i) Prismoidal rule.   (ii) Trapezoidal rule

5. a) What do you understand about the contracts and a contractor and explain?   [7]
   b) What are the different types of contracts and explain in brief?   [7]

6. a) Explain the valuation method based on profit?   [7]
   b) Explain the factors affecting the rate analysis?   [7]

PART–B *(1x28 = 28 Marks)*

7. The plan and sections of a one roomed building is shown in figure.1 (a) & (b) below.   [28]
   Prepare quantities for the following items of work by using any one method.
   (i) Earthwork in excavation in foundation
   (ii) Earthwork in plinth filling
   (iii) Lime concrete in foundation as PLC
   (iv) First class brick work in cement mortar.(1:6) for foundation and plinth

Figure1.(a)

Figure 1.(b)

Code No: RT42011   **R13**   **Set No. 2**

IV B.Tech II Semester Regular Examinations, April/May - 2017
ESTIMATING, SPECIFICATIONS & CONTRACTS
(Civil Engineering)

Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer any THREE questions from Part-A
Part-B is compulsory
Please Provide Code for Rate Analysis
Assume If any data is missing

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PART–A *(3x14=42 Marks)*

1. a) Explain the approximate method of estimating.   [7]
   b) Explain the factors to be considered during the preparation of a detailed estimate.   [7]

2 Find the cost of one cubic metre for the given item as per the rate analysis   [7]
   a) 1st class brick work with 1:4 cement motor   [7]
   b) Sand filling in basement for one cubic metre

3 a) Discuss about the general principles of contracts documents.   [7]
   b) Explain in detail about the sinking funds.   [7]

4 a) What are the conditions of contract?   [7]
   b) Write clear note on valuation of buildings?   [7]

5 Explain the following general items of work involved in the estimation for a building.   [14]
   (i) Centering & shuttering   (ii) Steel work
   (iii) Lime concrete in roof   (iv) Wood work for doors and windows

6 Calculate the quantity of earth work for 200m length for a portion of a road in a uniform ground, the heights of banks at the two ends being 1m and 1.60m. The formation width is 1.0m and side slopes 2H: 1V. Assume that there is no transverse slope. Adopt   [14]
   (i) Mid sectional area method
   (ii) Prismoidal formula method

PART–B *(1x28 = 28 Marks)*

7. Prepare quantities for the following items of work by using any one method from the drawing shown the figures 1. (a) and (b),   [28]
    (i)Earthwork in excavation in foundation
    (ii)Cement concrete(1:2:4) in foundation (PCC)
    (iii)Earthwork filling in plinth

(iv)1st class brickworks in foundation and plinth in cement mortar(1:6)
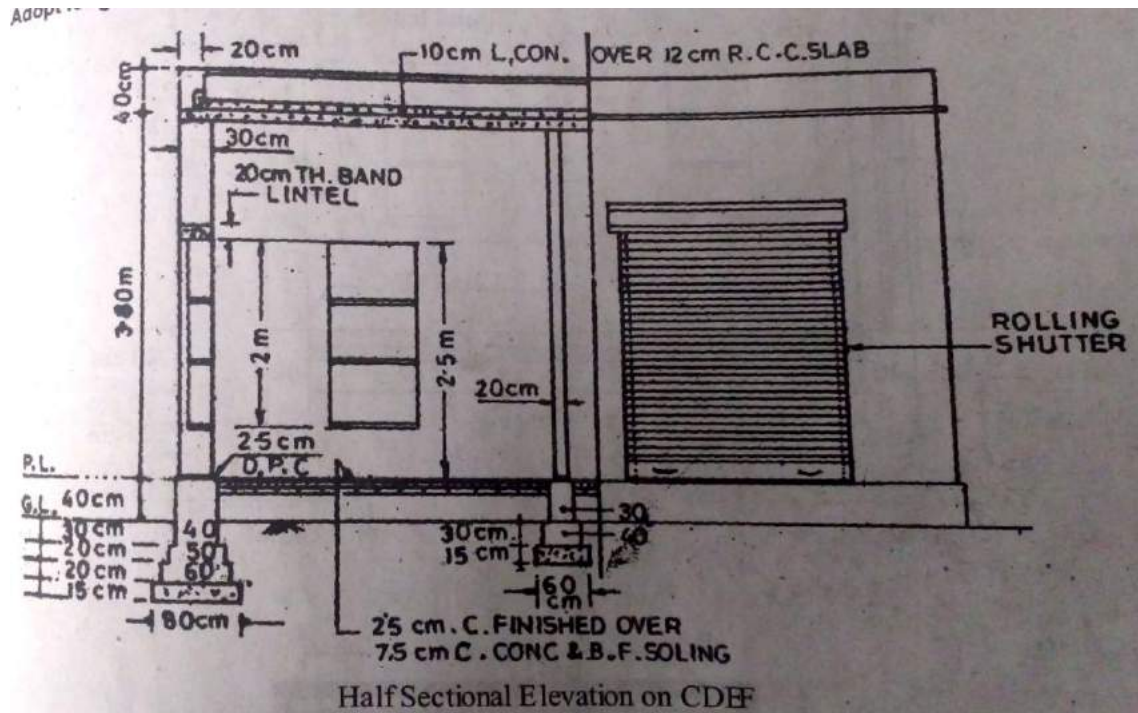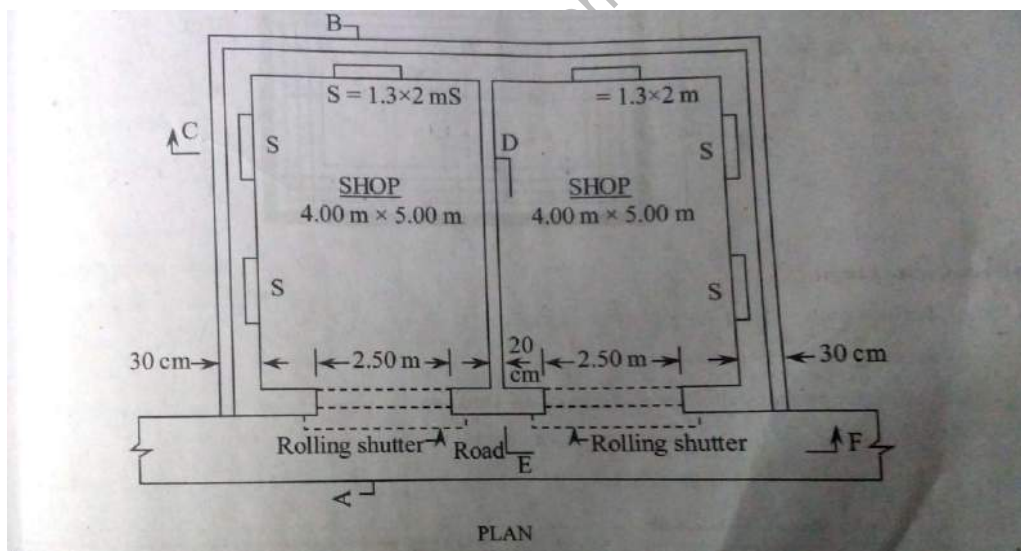

Figure 1.(a)

Figure 1.(b)

Code No: RT42011   **R13**   **Set No. 3**

Time: 3 hours   **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer any THREE questions from Part-A
Part-B is compulsory
Please Provide Code for Rate Analysis
Assume If any data is missing
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PART–A *(3x14=42 Marks)*

1. What is approximate estimate and explain about the importance of approximate estimate and item rate also? [14]

2. Give the rate analysis for [14]
   (i) Earthwork excavation for 1.cu.m
   (ii) Cement concrete (1:2:4)

3. a) Explain plinth area method of estimates in brief? [7]
   b) Write a note on the units principle for various items of work [7]

4. Write clear note on the following in case estimating the quantities of road work and canal embankments. [14]
   a) Prismoidal rule
   b) Trapezoidal rule
   c) Mid ordinate method

5. Write shote note on [14]
   a) Types of concretes
   b) Contracts & a Contractor
   c) Valuation of buildings

6. List out various materials required for plastering with different mortars of various proportions for 100 sq. m for 12mm thick plastering, total dry volume is 2 cu.m , and also for 20mm thick plastering, total dry volume is 3 cu.m . [14]

PART–B *(1x28 = 28 Marks)*

7. The plan and sections of a one roomed building is shown in figure 1 (a) & 1 (b) below. Prepare quanties for the following items of work by using any one method. [28]
   (i) Earthwork in excavation in foundation
   (ii) Earthwork in plinth filling
   (iii) Lime concrete in foundation (PLC)

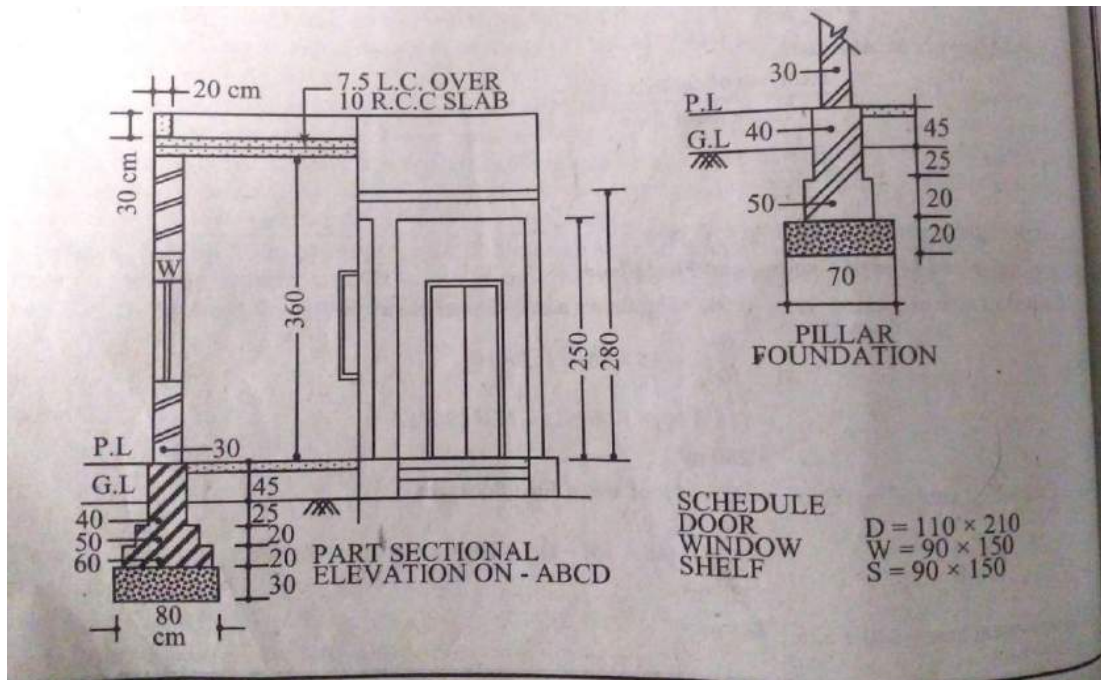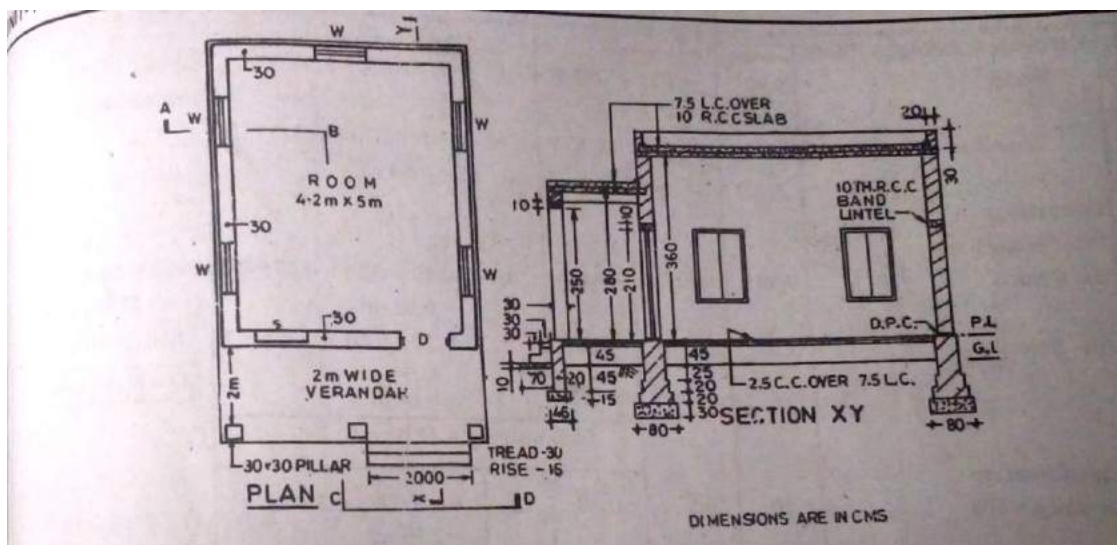(iv) First class brick work in cement mortar.(1:6) for foundation and plinth

Figure 1.(a)

Figure 1.(b)

Code No: RT42011

R13

Set No. 4

IV B.Tech II Semester Regular Examinations, April/May - 2017
ESTIMATING, SPECIFICATIONS & CONTRACTS
(Civil Engineering)

Time: 3 hours   **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer any THREE questions from Part-A
Part-B is compulsory
Please Provide Code for Rate Analysis
Assume If any data is missing
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PART–A *(3x14=42 Marks)*

1. a) Enumerate the purpose of an approximate method.   [7]
    b) Write clear note abstract estimates.   [7]

2   Find the rate of one cubic metre for the following as per the rate analysis   [14]
        (i) Plastering 1:4
        (ii) R.C.C work 1:2:4

3   Explain about detailed estimate by giving all the quantities item wise in tabular form.   [14]

4   Draw the tabular form for the calculation of earthwork with the following methods.   [14]
        (i) Mid ordinate method
        (ii) Mean sectional area method

5   a) Define the contracts and a contractor and explain item rate contract in brief.   [7]
    b) Write clear note on valuation of buildings.   [7]

6   a) Explain about year-purchase method.   [7]
    b) Give the detailed specification for earthwork in excavation in foundation.   [7]

PART–B *(1x28 = 28 Marks)*

7.   Prepare quantities for the following items of work by using any one method from the   [28]
        drawing shown the figures 1.(a) & 1.(b)
        (i)Earthwork in excavation in foundation
        (ii)Cement concrete(1:2:4) in foundation
        (iii)Earthwork filling in plinth
        (iv)1st class brickworks in foundation and plinth in cement mortar(1:6)
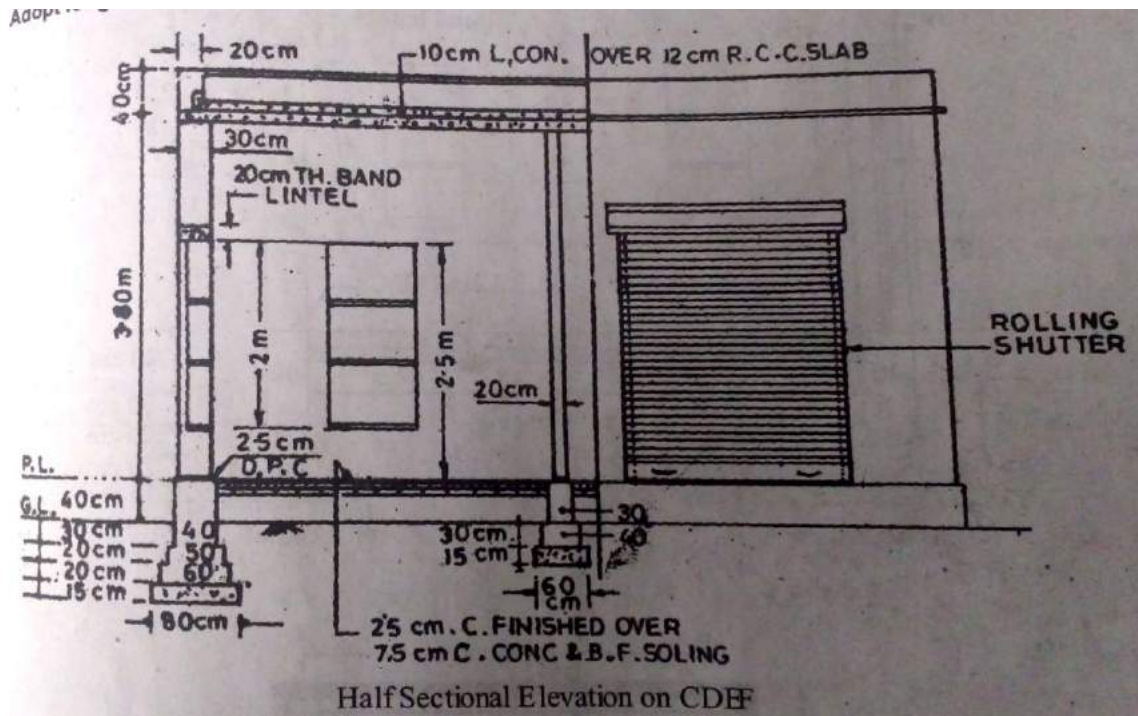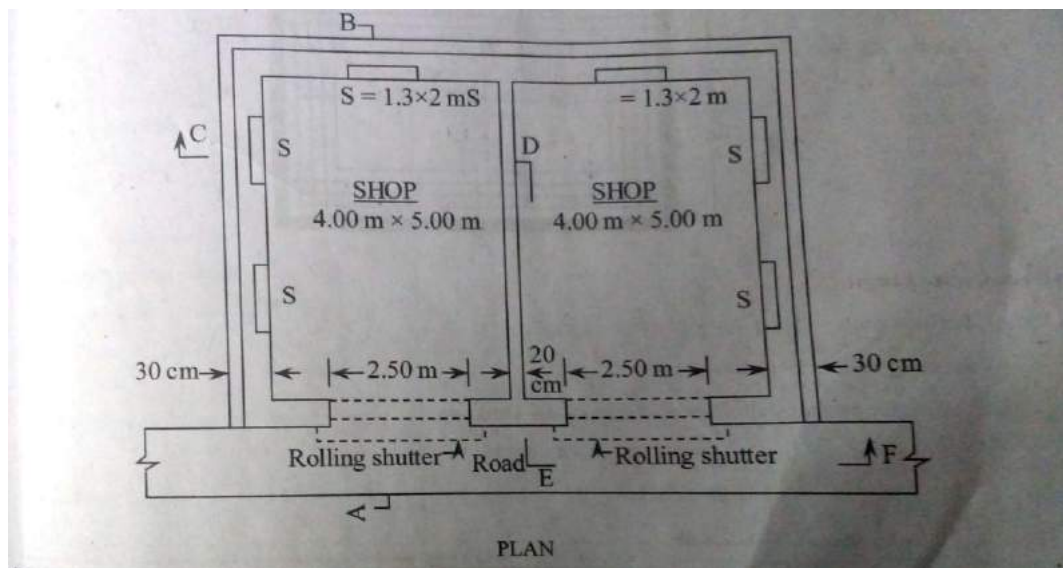
Figure 1.a

Figure 1.b