

Code No: **R42011****R10****Set No. 1****IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2016****ESTIMATING, SPECIFICATION AND CONTRACTS****(Civil Engineering)****Time: 3 hours****Max. Marks: 75****Answer any Three Questions Part A****Answer any One question in Part B****Questions in PART – A carry 15 marks and Questions in PART-B carry 30 marks*************Part A**

- 1 a) Mention the standard units used in estimation for any 5 items of building works. [7]
b) Explain briefly the relevance of approximate method of estimate. [8]
- 2 a) What is analysis of rates and why it is carried out even if valid SSR is available? [8]
b) Explain steps needed for carrying out rate analysis for any typical item in civil works. [7]
- 3 With an example, prepare a detailed estimate of a RCC Rectangular Beam including centering and shuttering and steel reinforcement? Also prepare a schedule of bars. [15]
- 4 What is depreciation? Explain the different methods of depreciation. [15]
- 5 Write the detailed specifications for 1st class brickwork in CM 1:6. [15]

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Part B

6 Calculate quantity of following items of work and enter the same in standard format of measurement sheet with brief description of item (refer Figure1):

- (i) Excavation for wall foundation
- (ii) Brick works

Note: Make suitable assumptions where necessary.

[30]

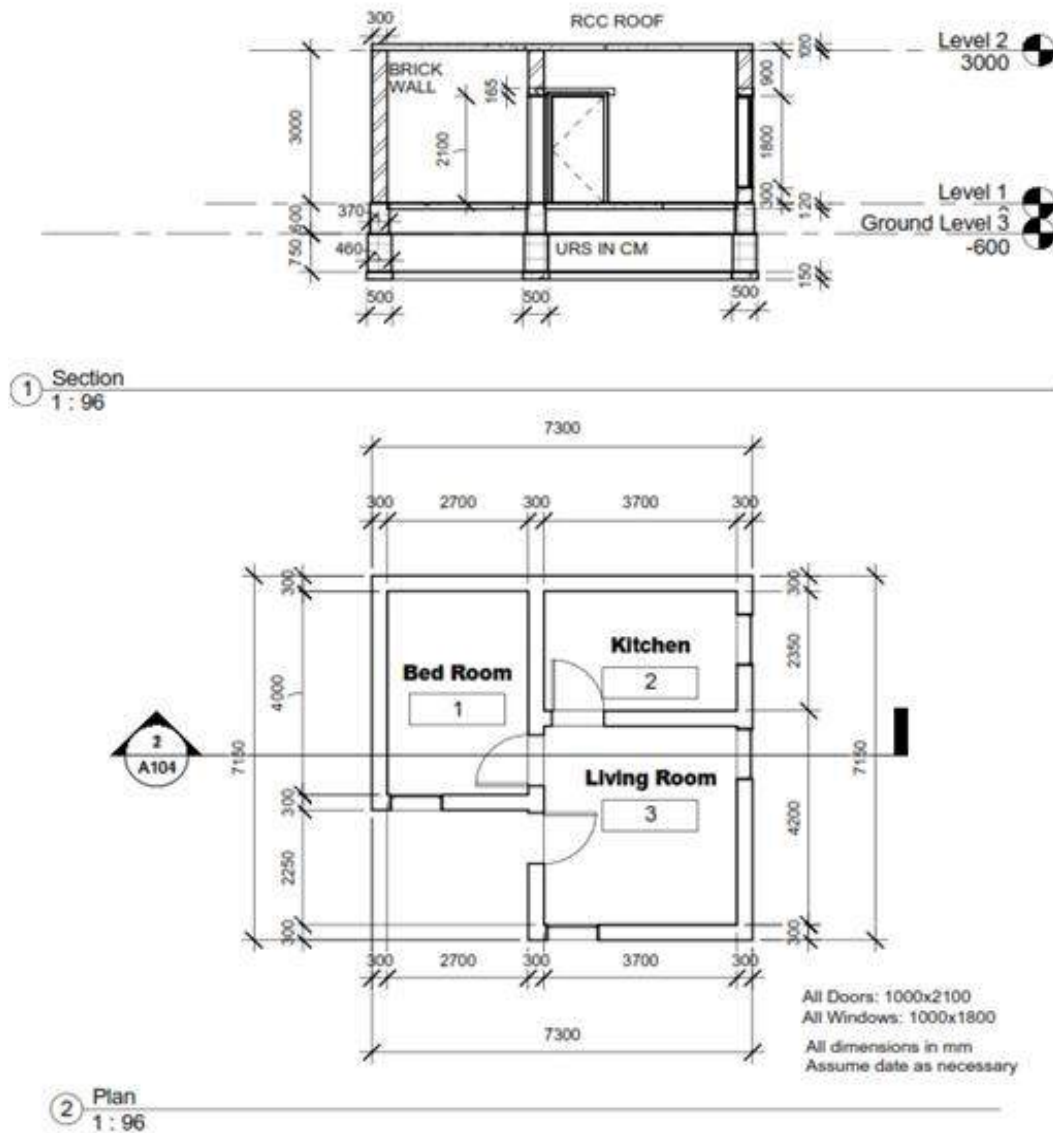


Figure 1

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7. Detailed Estimate of a Building by Long wall and short wall method shown in Figure - 2?
Assume suitable data.



Figure – 2

Set No. 2

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ESTIMATING, SPECIFICATION AND CONTRACTS

(Civil Engineering)

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

Answer any Three Questions Part A

Answer any One question in Part B

Questions in PART – A carry 15 marks and Questions in PART-B carry 30 marks

Part A

- 1
 - a) List the major information/data needed for enabling preparation of estimate for a building [8]
 - b) Discuss the various units of measurement used for estimation of civil works [7]
- 2
 - a) Discuss the circumstances under which rate analysis is required to be carried out even if SRR is available [8]
 - b) List the components to be considered for Rate analysis of Brick Masonry work [7]

- 3 Estimate the quantity of earthwork in cutting for a road of 10 m formation width the following data using mean sectional area method or trapezoidal formula method. Side slope is 2:1 (H:V) and no cross slope.

Chainage (meters)	0	30	60	90	120	150
Ground Level	80.5	79.30	81.40	84.00	85.1	83.5
Formation level	75.0	Rising gradient of 1 in 30				

- | | | |
|---|--|------|
| | If the cost of cutting is Rs.140/cu.m, estimate the total cost of work | [15] |
| 4 | a) Differentiate between administrative approval and technical sanction. | [8] |
| | b) Differentiate between security money and Earnest money. | [7] |
| 5 | Write specifications for plastering brickwork with CM 1:6 | [15] |

Part B

- 6 a) The Figure 1 shows 3 roomed building. Estimate the quantities and cost of earth work in excavation for foundation in hard soil @ Rs.140/cum.
Note: make assumptions where necessary. [8]
- b) For the same building estimate the CC bed in 1:4:8 for all walls @ Rs. 2900/cu.m [7]

Set No. 2



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Set No. 2

- 7 Prepare detailed estimate for the plastering of super structure in CM 1:6 for building in Figure 2.

Note: Make suitable assumptions where necessary.

[30]

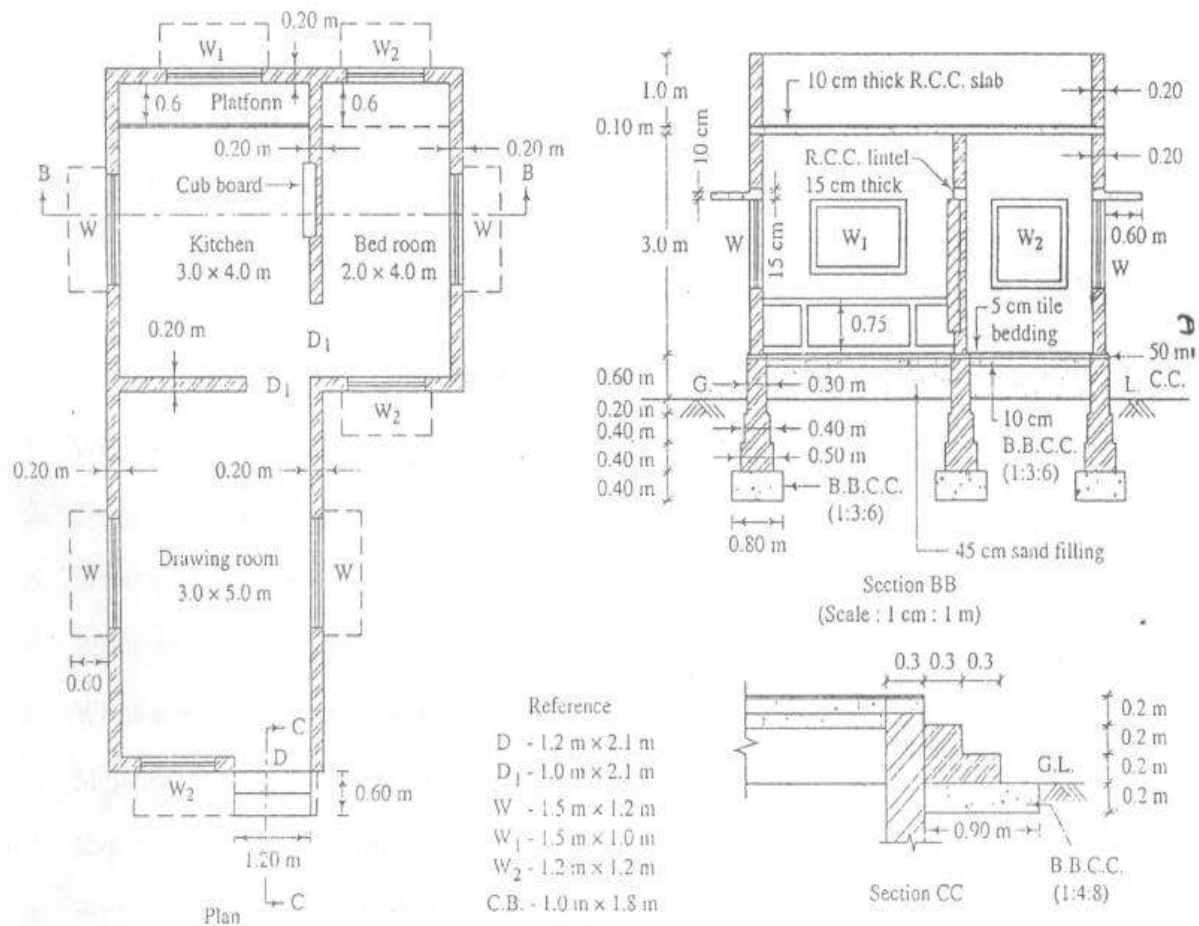


Figure 2

Code No: **R42011****R10****Set No. 3****IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2016**
ESTIMATING, SPECIFICATION AND CONTRACTS**(Civil Engineering)****Time: 3 hours****Max. Marks: 75****Answer any Three Questions Part A****Answer any One question in Part B****Questions in PART – A carry 15 marks and Questions in PART-B carry 30 marks*************Part A**

- 1 a) What is approximate estimate and explain the importance? [8]
b) What is accuracy in estimate preparation? [7]
- 2 a) What is the need for contingent charges in estimate and how you make provision for the same? [8]
b) Explain the procedure of Rate Analysis and situations when Rate Analysis is needed to be carried out for items in public works. [7]
- 3 With a suitable example, prepare a detailed estimate of a RCC Rectangular Beam including centering and shuttering and steel reinforcement? Also prepare a schedule of bars. [15]
- 4 a) Differentiate between lump sum contract and labor contract. [8]
b) Differentiate between administrative approval and technical sanction. [7]
- 5 Write specifications for plastering interior walls CM 1:6 [15]

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Part B

- 6 Calculate quantity of items of work for Brick Work and enter the same in standard format of measurement sheet with brief description of item (refer Figure 1.):

Note: Make suitable assumptions where necessary.

[30]

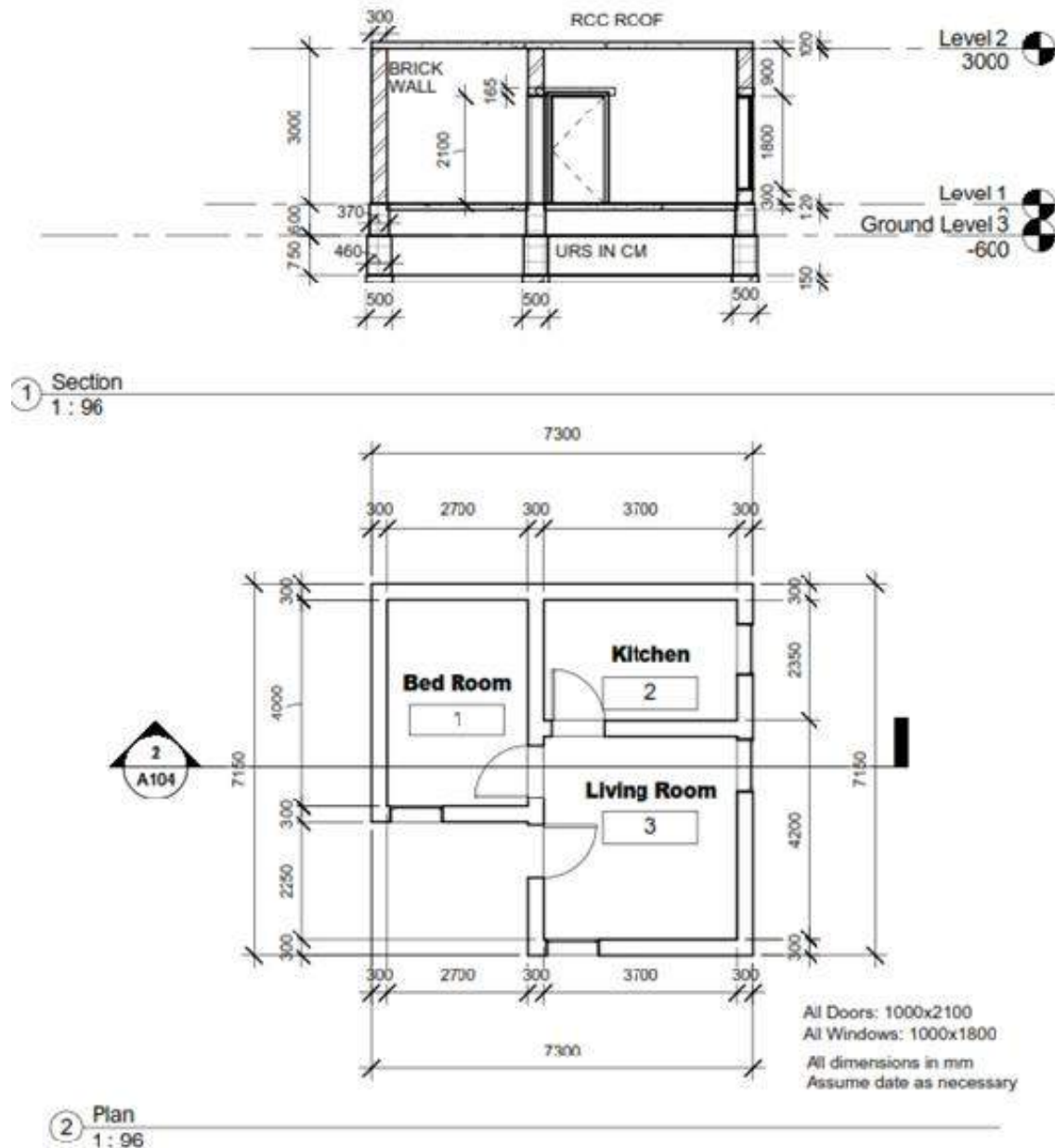


Figure 1

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- 7 Prepare detailed estimate for the plastering of super structure in CM 1:6 for building in Figure 2.

Note: Make suitable assumptions where necessary.

[30]

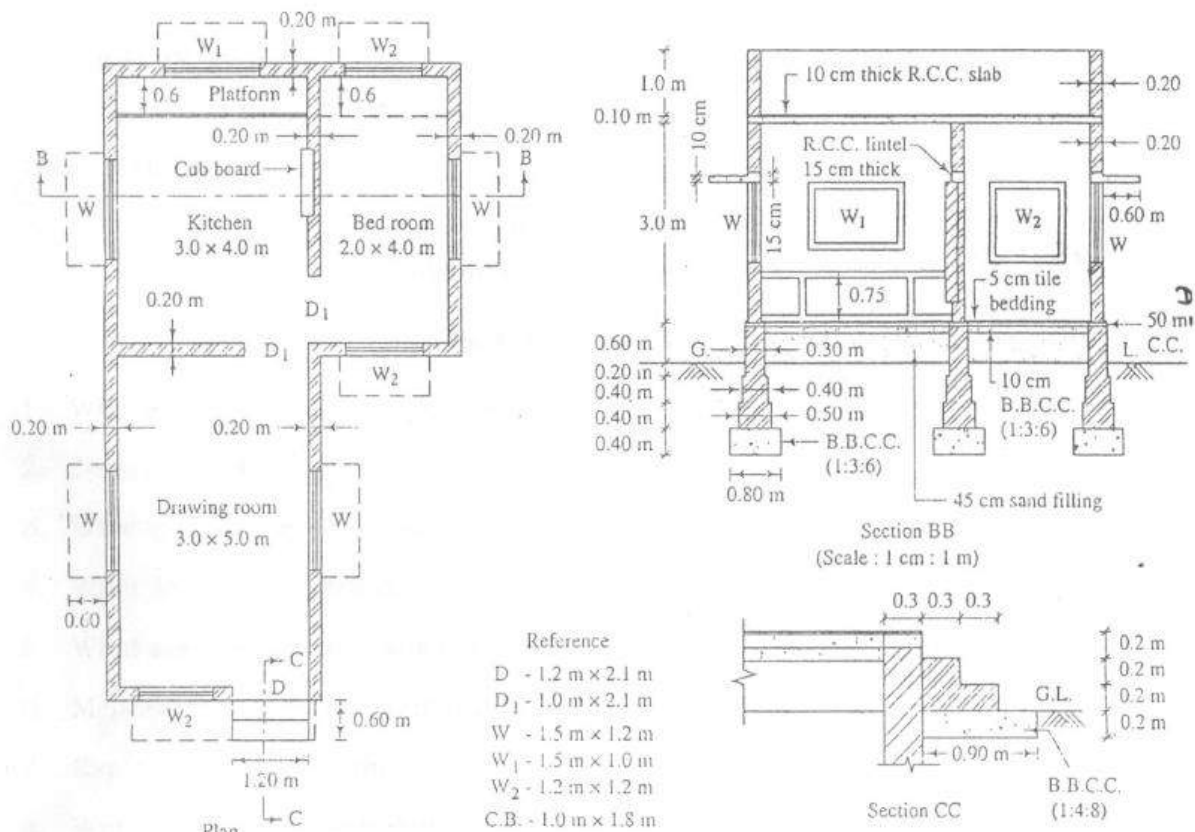


Figure 2

Code No: **R42011****R10****Set No. 4**

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Time: 3 hours**Max. Marks: 75****Answer any Three Questions Part A****Answer any One question in Part B****Questions in PART – A carry 15 marks and Questions in PART-B carry 30 marks*************Part A**

- 1 a) Explain the General items of work in Building. [10]
b) Discuss accuracy in estimation of civil works. [5]
- 2 a) What is analysis of rates and why it is carried out even if valid SSR is available? [8]
b) Explain steps needed for carrying out rate analysis for a typical item in civil works. [7]
- 3 The ground levels along the center line of the road are given below [15]

Chainage (meters)	0	50	100	150
RL of Ground	97.00	96.50	96.00	97.50

The road is to be formed in embankment with the formation level at 100.00m throughout the length. If the road width is 10.00 m and the side slopes 2:1, calculate the quantity of earthwork required by Trapezoidal rule. Assume transverse slope as level.

- 4 a) List components of a typical tender notice. [7]
b) Explain the procedure to be followed for opening construction tenders. [8]
- 5 Explain the general specification for First, Second and Third class buildings. [15]

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6. Detailed Estimate of a Building by centre line method shown in Figure – 1?
Assume suitable data.



Figure 1

- 7 Prepare detailed estimate for the single room building shown in the sketch plan and section in Figure 2.
Note: Make suitable assumptions where necessary.

[30]

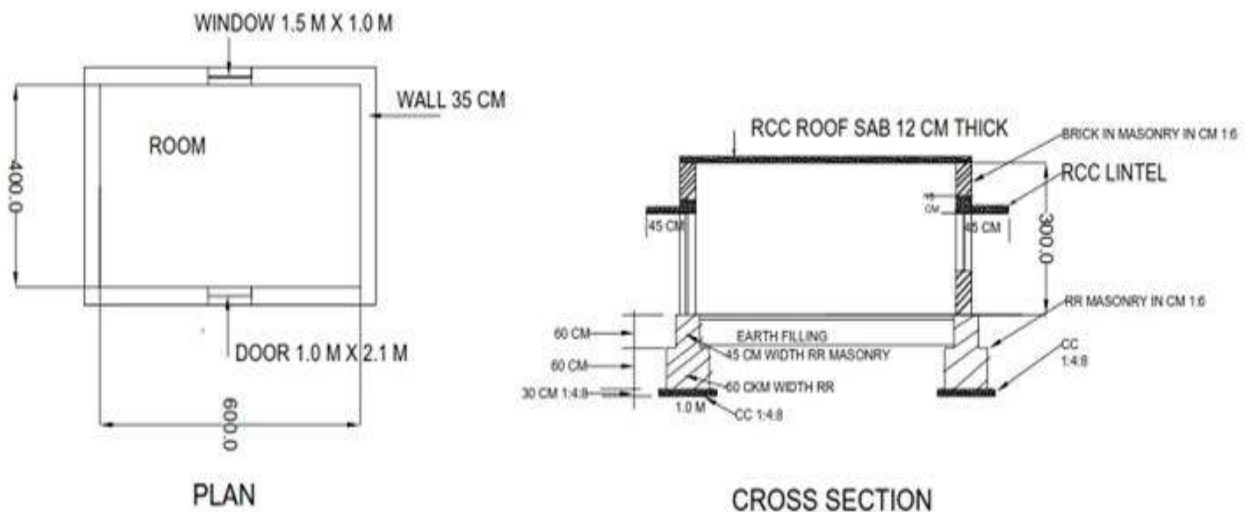


Figure 2