

**B.Tech. CIVIL ENGINEERING (BTCLEVI)****Term-End Examination****December, 2015****BICE-010 : QUANTITY SURVEYING AND COSTING***Time : 3 hours**Maximum Marks : 70*

*Note : Answer any seven questions. All questions carry equal marks. Use of scientific calculator is allowed.*

1. Write short notes on the following :  $4 \times 2 \frac{1}{2} = 10$ 
  - (a) Plinth area rate
  - (b) Bill of quantities
  - (c) Measurement sheet
  - (d) Abstract sheet
2. What are the various modes of measurement ? Discuss briefly and also specify the units for each. 10
3. What are the different types of estimates ? Discuss the detailed estimate of a building. 10

4. What do you understand by valuation and depreciation ? Discuss their purpose in detail. 10
5. Describe, in brief, the general specifications for a 2<sup>nd</sup> class building with a 3-storey R.C.C. frame structure. 10
6. A building of replacement value of about ₹ 70,000 stands on a main road on a leasehold plot. The ground rent is ₹ 295 per annum. The building has R.C.C. frame structure. It is estimated that the building will have a future life of 70 years. The rent of the building is ₹ 400 per month. The taxes payable are 18% of the gross rent and the insurance premium is 0.5% of the gross rent. Assuming suitable figures for other items of the usual outgo, determine the capitalized value of the property on the basis of 5% net yield. The sinking fund coefficient for the replacement of the capital in 70 years at 3% is 0.0043. 10
7. Describe the separate wall method of building estimate with a neat sketch. 10

8. Calculate the volume of earthwork for a proposed road having formation width of 7.5 m and side slope of 1 : 1, using mid-sectional area method. Details of the road are as given below :

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Ch. (m)	G.L.(m)
0	10.55
30	10.50
60	10.40
90	10.35
120	10.20
150	10.00
180	9.80
210	9.65
240	9.60
270	9.40
300	9.20

9. Write detailed specifications for R.C.C. work for a three-storey office building.

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