

Roll No. ....

## OLE-24513

### B. Tech. 7th Semester (Civil)

### Examination – April, 2021

#### ESTIMATING AND COSTING

Paper : CE-405-F

Time : Three hours ]

[ Maximum Marks : 100

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* questions in all, selecting *one* question from each Section. Question No. 1 is *compulsory*.

1. Describe the following : 10 × 2 = 20
- (a) Different types of specifications
  - (b) Earnest and retention money
  - (c) Methods to calculate earthwork
  - (d) Principle of estimate
  - (e) Importance of rate analysis
  - (f) General specifications for brickwork of a first class building
  - (g) Cash book and measurement book
  - (h) Administrative sanction
  - (i) Valuation and its purpose

(j) Necessity of specification

## SECTION – A

2. (a) Calculate the details of measurement and quantity of one room of given figure by using any method.

15

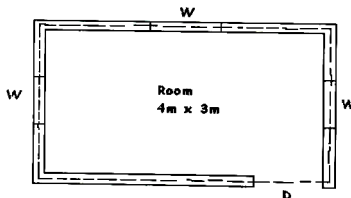
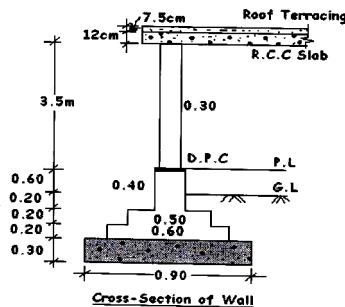


Fig. 1



(b) What are methods used for calculating the earthwork in case of canals and dams. 5

3. (a) What are the different types of Estimation ? Explain Plinth Area Estimation in detail. 10

(b) What are the Methods adopted to Calculate Earthwork of Roads ? Explain with Sketches. 10

## SECTION – B

4. (a) Write the specifications of Reinforcement, Sand, Cement, Water and Lime. 10

- (b) Write the detailed specification of D. P. C. (1 : 1.5 : 3), cement plastering, earthwork for foundation, finishing and painting. 10
5. (a) Differentiate between Ist class, IInd class and IIIrd class buildings. 10
- (b) Describe the advantages and disadvantages of open and closed specification. 10

### SECTION – C

6. (a) Describe in detail the procedure of rate analysis for concrete work, earth work, plastering and painting. 10
- (b) Prepare detailed analysis of rate for brickwork in cement mortar 1 : 6 in superstructure. Labor required for 30 Cum of brickwork are 27 Masons and 60 Laborers. Rates of materials and labours may be assumed suitably. 10
7. (a) Estimate the quantity and cost for R.C.C work in beam, slab etc. 1 : 2 : 4 - unit 100 cum. Assume suitable data. 10
- (b) Describe the unit of measurement and mode of measurement for the following items of work : 10
- (i) Earth filling in plinth

- (ii) Damp proof course
- (iii) White washing
- (iv) Distempering

### **SECTION – D**

- 8.** (a) Describe Muster Roll and the rules for writing muster roll. Also explain the common irregularities which may occur in maintaining the muster rolls. 10
- (b) Explain valuation of a building. Also describe the rental-return method of valuation in detail. 10
- 9.** (a) What are the different types of contracts ? Briefly describe the advantages and disadvantages of these contracts. 10
- (b) Describe the following terms : 10
- (i) Depreciation fund
  - (ii) Different types of payments

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