

Total number of printed pages—4

43 (6) ESCO

2014

ESTIMATING & COSTING

Paper : Eng-6-4

Full Marks : 100

Pass Marks : 40

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

1. Write short notes on the following : *(any five)*
4×5=20

- (a) Schedule of Rates
- (b) Revised Estimate
- (c) Measurement book
- (d) Abstract of the Estimate
- (e) Major factor affecting the Rate analysis.

Contd.

- (f) Centre line method
- (g) Components for Road work Estimation.

2. Being an Architect, you have been assigned a work of estimating a floor of your college building which consists of 5 nos. of Rooms. Each room is having a dimension of $5.6m \times 4.2m \times 3.1m$. Each room consists of 2 nos. of dimension $1.10m \times 2.10m$, 4 windows of $.75m \times 1.5m$ and 2 nos. of ventilator of $1.8m \times .45m$.

(a) The rooms are to be painted with plastic paint

(b) Floor is to be finished marble

Schedule of Rates —

- (1) Plastic paint @ Rs 241/- per sq.m.
- (2) Floor marble measuring $2\text{ ft.} \times 2\text{ ft.}$ available in the market @ Rs 460/- per tile.
- (Rates inclusive of labour charges) 20

3. Estimate the cement plastered $6mm$ thick in C.M. (1 : 4) for 10 sq.m. Add 10% contractor's profit and 1.5% on water and electricity consumption charge on total cost. 20

4. Prepare an Estimate for $120mm$ thickness of R.C.C. slab with steel requirement for 10 sq.m. Consider the grade of cement to be MIS. Add 20% contractor's profit and 5% for water consumption and electricity charges and 11% VAT. 20

5. Prepare an Estimate for pre-cast terrazzo tile on average $25mm$ thick bedding of C.M. (1 : 4). Consider your own standard rates. 20

6. A water supply scheme is coming up in your town shortly. Being the Architect of the scheme you have been assigned to prepare a detailed Estimate of supplying and laying of $100mm$ dia GI water supply pipe for $25km$ length which includes jointing, trenching upto a depth of $1m$. Consider necessary materials and labour.

length of each pipe = $5m$

Consider your own appropriate rate. 20

7. (a) Explain Rate analysis. Also explain in detail about importance and essentials of rate analysis. 10

(b) What are main items of work you will consider in estimating any RCC Building Construction. 10

8. Prepare an estimate for R.C.C. of below a column footing in foundation for $1m^3$ of concrete. Consider M.I.S grade of concrete. Assume your own standard rates of various items. 20