

Roll No.

24513

B. Tech. 7th Semester (Civil Engineering)

Examination – December, 2012

ESTIMATING & 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. Question No. 1 is *compulsory*. Attempt *one* questions from each Section. Each question carries equal marks.

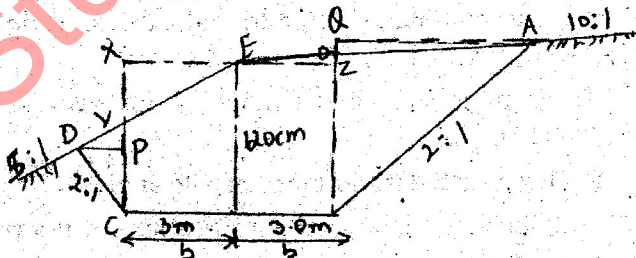
1. (a) What are derived units ? Give example.
- (b) What is prescribed form to fill details of measurements.
- (c) List the data required to make out an estimate for a work.
- (d) What is the labour required for earthwork per 28.30 cum.
- (e) Discuss the importance of rate analysis.
- (f) Mention the general specification for flooring of a first class building.

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P. T. O.

- $2 \times 10 = 20$

2. (a) What are different methods of building estimate ?
Explain briefly. 10
- (b) Discuss general items of work for building construction. 10
3. (a) Write down the material requirement for different proportion of cement concrete for 10 cum. 10
- (b) The formation width of a hill road is 6 metre, the road is passing on hill side having the average cross-section as in fig 1. Calculate the quantity of earthwork for the meter length of the road. Estimate also the cost of earthwork at the rate of Rs. 275.00/cum.



SECTION – B

4. Write down the detailed specification of the following :

4 × 5 = 20

- (i) Brick work I-class,
- (ii) White washing,
- (iii) Earthwork in excavation in foundation,
- (iv) Damp proof course 2.5 cm.

5. (a) Explain the following specifications.

10

- (i) General specification
- (ii) Detailed specification
- (b) List out the points of difference between general specification of Ist, IInd & IIIrd Class Building 10

SECTION – C

6. (a) What is the analysis of rate ? Discuss its importance. What is the approximate quantity of work or out-turn for an average artisan per day ? (any six) ? 10

(b) Write down unit of measurement, unit rate of payment & mode of measurement for the following general items of work :

- (i) Earth filling in plinth,
- (ii) Cement Concrete,
- (iii) White Washing,
- (iv) Supply of Cement,
- (v) Damp proof course.

10

7. Describe the procedure for the calculation of rate for the following : $2 \times 10 = 20$

- (i) Cement concrete, 1 : 5 : 10 in foundation with brick ballast 40 mm thick gauge – unit 1 cum.
- (ii) R.C.C. brick work on slabs etc. 1 : 3 mortar – unit 1 cum.

SECTION – D

8. (a) What is the procedure of maintaining cash books. 10

(b) What is muster roll & its use ? What are the rules followed to prepare muster roll ? 10

9. Write short note on : $4 \times 5 = 20$

- (i) Rental – return method,
- (ii) Principles of valuation,
- (iii) Acceptance of tender,
- (iv) Different types of payment.