

A 196

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2005.

Seventh Semester

Civil Engineering

CE 431 --- ESTIMATION AND COST ENGINEERING

Maximum : 100 marks

Time : Three hours

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is plinth area estimate?
2. What is provisional sum?
3. State the two types of specifications.
4. What is earnest money deposit?
5. What is item rate contract?
6. What is termination of contract?
7. What is valuation?
8. What is scrap value of a building?
9. State the two stages of cost control.
10. State any two purposes served by cost control.

PART B — (5 × 16 = 80 marks)

11. (i) Calculate the quantity of earthwork for 200 metre length for a portion of a road in a uniform ground, the heights of banks at the two ends being 1.00 m and 1.60 m. The formation width is 10 metre and side slope is 2 : 1 (Horizontal : Vertical). Assume that there is no transverse slope. Use prismoidal formula method.
- (ii) What is prismoidal correction?

12. (a) Explain the general specifications of a first class building.

Or

(b) Explain the detailed specification of the following items of works :

(i) Earthwork in excavation in foundation

(ii) Cement concrete 1 : 2 : 4

(iii) Damp proof course

(iv) White washing 2 coats.

13. (a) Explain the documents to be attached to a contract document in detail.

Or

(b) Explain about the particulars given in a tender notice.

14. (a) Explain the four methods of calculating depreciation.

Or

(b) A building is situated by the main road of Chennai city on a land of 500 sq.m. the built up area is 20 m × 15 m. The building is first class type and provided with water supply, sanitary and electric fittings. The age of the building is 30 years. Assume present plinth area rate as Rs. 5,000 per sqm including water supply, sanitary and electric fittings. Assume present cost of land as 6000 per sq.m. Workout the present value of the property which includes present cost of land and present cost of building. The life of the building is assumed to be 100 years.

15. (a) Explain any four ways of classification of cost control.

Or

(b) Explain the decimal coding system and sample coding system of cost control in detail.