



Register Number: .....

**B.E DEGREE EXAMINATIONS: NOV/DEC 2014**

(Regulation 2009)

Seventh Semester

**CIVIL ENGINEERING**

CEE125: Estimation and Costing

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. Unit of rate for Damp proof course

- a) mm/sec                      b) m                      c) m<sup>2</sup>                      d) m<sup>3</sup>

2. The quality of wood for shutters of doors and windows is calculated in

- a) m<sup>2</sup>                      b) m<sup>3</sup>                      c) lump sum                      d) m

3. No deduction is made in the masonry for the opening if the area of the opening does not exceed

- a) 0.5 m<sup>2</sup>                      b) 0.25 m<sup>2</sup>                      c) 0.15 m<sup>2</sup>                      d) 0.10 m<sup>2</sup>

4. In the analysis of rates, the profit for the contractor is generally taken as

- a) 20%                      b) 15%                      c) 10%                      d) 5%

5. The gradual accumulation of amount by way of annual periodic deposits which is meant for the replacement of the structure at the end of its useful life period is known as

- a) annuity                      b) depreciation                      c) sinking fund                      d) sotatium
6. The quantum of work of any item a skilled labour is supposed to turnout in a day is known as
- a) Unit work                      b) task work                      c) target work                      d) basic work
7. The approximate weight of one cubic meter of mild steel is
- a) 1000 kg                      b) 2400 kg                      c) 1400 kg                      d) 7850 kg
8. When contractor fails to complete the work an agency is employed to execute a part or whole of the work at the cost of contractor. Such an agency is known as
- a) Substitute agency                      b) Debitable agency
- c) Secondary agency                      d) creditable agency
9. The amount required to be deposited by a contractor while submitting a tender is known as
- a) Fixed deposit                      b) caution deposit
- c) security deposit                      d) earnest money deposit
10. Minimum size of the pipe connected to septic tank is
- a) 50 mm                      b) 100 mm                      c) 150 mm                      d) 200 mm

**PART B (10 x 2 = 20 Marks)**

11. Define administrative approval and Technical sanction.
12. What is schedule of rates?
13. Why analysis of rate is required?
14. What are different parts of road in cross section?
15. What is a supplementary estimate and when it is prepared?
16. Why rent statement is required?
17. What is M Book?
18. What do you understand by requisition of land for a canal or road?
19. Define sinking fund.
20. Why specifications are important in contract?

**PART C (5 x 14 = 70 Marks)**

21. a) Estimate the cost of a reinforced concrete slab 12.5 cm thick for the roof & a room 6m x 4 m having 15 cm bearing over walls. The main reinforcement bars 12 mm dia spaced 10 cm c/c and the distributing bars are 10 mm dia spaced 20 cm c/c. Alternate main bars are bent up at 1/6 of span from the support. Steel reinforcement are to be taken under a separate item. Assume rates prevailing in the locality. Draw also the cross section of the slab.

**(OR)**

b) What are the different methods of estimate quantity of

(i) earth work in exaction in foundation

(ii) foundation concrete

(iii) first class brick work in foundation of plinth to the figure shown.

22. a) Estimate the cost of earthwork involved, given that (i) formation width in cutting  $1\frac{1}{2} : 1$  and in banking 2:1 Rate of earthwork Rs.120 per cu.m in cutting and Rs.125per cu.m in filling.

**(OR)**

b) Prepare an estimate of septic tank for a family of 5 members. Assume data if necessary.

23. a) Write down the detailed specification of the following

(i) Cement concrete in foundation

(ii) Damp proof course.

**(OR)**

b) Calculate the rate of the cement concrete floor of 2.5 cm in  $1:1\frac{1}{2} :3$  ratios.

24. a) Explain in details the different methods of valuation.

**(OR)**

b) A building costing Rs. 35 lakhs has been constructed on a free hold land measuring

10 sq.m recently. Prevailing rate of land in the neighborhood is Rs.1050.00 per sq.m. Determine the net rent of the property if the expenditure on an outgoing including sinking fund is Rs.100000.00 per annum. Work out also the gross rent of the property per months.

25. a) Write the different stages of preparation of NH Road.

**(OR)**

b) Give short notes for PWD work on

(i) cash flow

(ii) cash account

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