

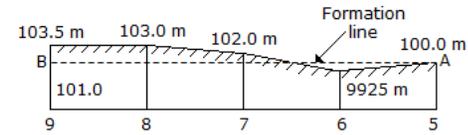
B.E DEGREE EXAMINATIONS: APRIL/MAY 2014

(Regulation 2009)

Seventh Semester

CIVIL ENGINEERING

CEE125: Estimating And Costing



Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Pick up the correct statement in case of water supply
 - a) Pipes laid in trenches and pipes fixed to walls are measured separately
 - b) Pipes are classified according to their sizes and quality
 - c) Cutting through walls and floors are included with the item
 - d) All the above
2. While preparing a detailed estimate
 - a) Dimension should be measured correct to 0.01 m
 - b) Volume should be measured correct to 0.01 cum
 - c) Area should be measured correct to 0.01 sqm
 - d) All the above.
3. In long and short wall method of estimation, the length of long wall is the centre to centre distance between the walls and
 - a) breadth of the wall
 - b) one fourth breadth of wall on each side
 - c) half breadth of wall on each side
 - d) None of these.
4. The plinth area of a building includes
 - a) area of the walls at the floor level
 - b) internal shaft for sanitary installations up to 2 sq m. in area
 - c) area of stair cover
 - d) area of cantilevered porch
5. The inspection pit or chamber is a manhole provided in a base drainage system
 - a) at every change of direction
 - b) at the point where vertical soil pipe joins the house drain
 - c) at every change of gradient
 - d) All the above.
6. The expected out turn of 12 mm plastering with cement mortar is
 - a) 2.5 sq m
 - b) 6.0 sq m
 - c) 4.0 sq m
 - d) 8.0 sq m
7. The reduced levels of points, 30 meters apart along the longitudinal section of a road portion between chainages 5 and 9 are shown in the given figure. If there is a uniform up-gradient of the road 120 in 1, the chainage of the point with no filling or cutting is

- a) (6 + 15) chains
 - b) (6 + 18) chains
 - c) (6 + 12) chains
 - d) None of these.
8. The excavation exceeding 1.5 m in width and 10 sq.m in plan area with a depth not exceeding 30 cm, is termed as
 - a) Excavation
 - b) Cutting
 - c) Surface dressing
 - d) Surface excavation.
 9. According to ISI method of measurement, the order of the sequence is
 - a) Length, breadth, height
 - b) Height, length, breadth
 - c) Breadth, length, height
 - d) None of these.
 10. The detention period in a septic tank is assumed
 - a) 20 minutes
 - b) 30 minutes
 - c) 25 minutes
 - d) 40 minutes

PART B (10 x 2 = 20 Marks)

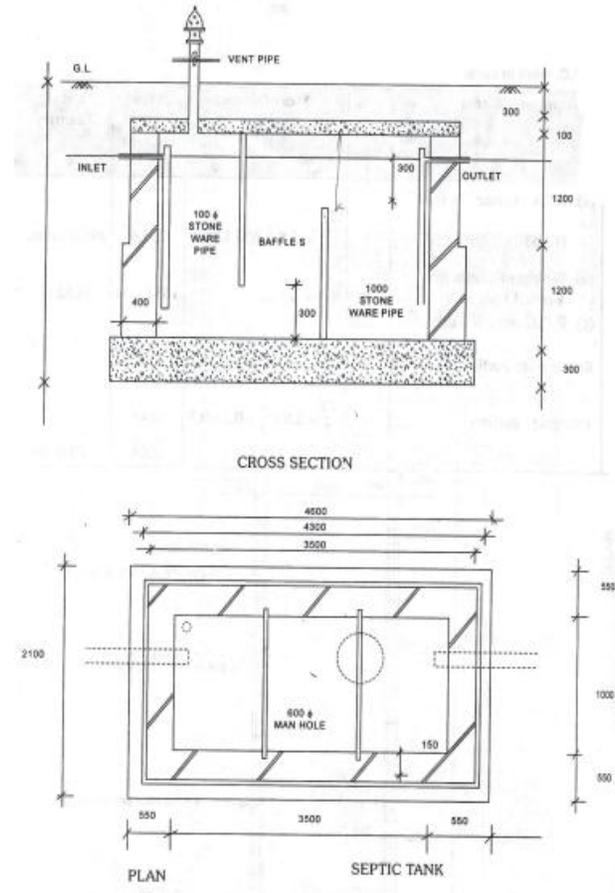
11. State the requirements of an estimate?
12. What is work charged establishment?
13. List the difference between centre line method and long wall-short wall method of taking out measurements.
14. Mention the units for the following items.
 - a) Flooring
 - b) R.R.Masonry
 - c) Plastering for pointing
 - d) Damp proof course
 - e) R.C. sunshade (Specified width and thickness)
15. List the requirements of data preparation
16. What are the factors to be considered while preparing Detailed Estimate?
17. Define Rate analysis
18. Differentiate the terms lead and lift with respect to rate analysis.
19. What do you mean by Mortgage lease?
20. State the purpose of sub estimate and M-Book.

PART C (5 x 14 = 70 Marks)

21. a) From the Drawing given below determine (a) Earth work excavation
 (b) CC (1:6:18) Bed (c) Reinforced cement concrete (1:1 $\frac{1}{2}$:3) d) Damp
 proof course (DPL).

- b) (i) Prepare an abstract estimate for the following items. Rates are given in the bracket.
- 1) Earthwork in excavation = 4.32 cu m (Rs 120.00/ cu.m)
 - 2) CC in foundation = 1.44 cu m (Rs 2600.00/cu.m)
 - 3) 1st class brickwork in foundation = 3.24 cu m (Rs3350.00/cu.m)
 - 4) DPC = 2.4 sq m (Rs12600.00/10 sq.m)
 - 5) 1st class brickwork in super structure = 6.3 cu m (Rs3350.00/cu.m)
 - 6) Plastering = 46.2 sq m (Rs900.00/10 sq.m)
 - 7) White wash = 21.6 sq m (Rs 760.00/10sq.m)
 - 8) Color wash = 24.6 sq m (Rs 1450.00/10sq.m)

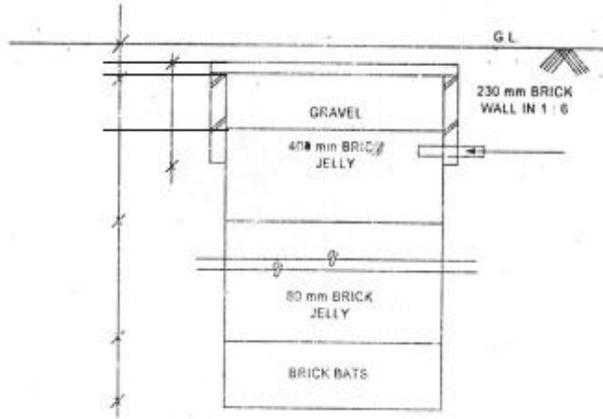
22. a) Calculate the quantities of different items of the figure shown in below



(OR)

(OR)

- b) Calculate the quantities of different items of the figure shown in below
SOAK PIT



23. a) Prepare a data sheet and calculate the cost of the items given below:
- a) Brick masonry in C.M. (1:6) with country bricks-unit 1cum.
600Nos. country bricks.
0.38m³ C.M.(1:6)
1.40Nos. Mason
0.7 Nos. Man Mazdoor
2.1 Nos. Woman Mazdoor L.S.
Sundries.
 - b) C.C.(1:5:10) using 40mm HBG metal unit 1cum.
0.92m³..... 40mm size HBG metal
0.46m³..... Sand
0.092m³..... Cement
0.2 Nos Mason
1.8 Nos Man Mazdoor
1.4 Nos. Woman Mazdoor
L.S. Sundries.
Lead Statement of materials:

S.No.	Material	Cost at Source Rs. Ps.	Per	Lead in Km	Conveyance Charges per Km
1	40mmHBG metal	210=00	m ³	16	Rs.6=00/m ³
2	Sand	16=00	m ³	18	Rs.3=00/m ³
3	Bricks country	780=00	1000Nos	at site	--
4	Cement	2600=00	10kN or 1tonne	at site	--

(OR)

- b) Prepare the unit rate for the following finished item of works.
Cement Concrete in foundation (1:5:10)
ii. Cement Concrete in foundation (1:4:8)
24. a) Explain the different types of valuation in detail. (12)
- (OR)
- b) Define (i) Schedule of rates (4)
(ii) Rate analysis (4)
(iii) Tender (2)
(iv) Bill of Quantities (2)
(v) Task or out-turn (2)
25. a) (i) Write down a detailed report on estimation of road construction. (7)
(ii) Write a detailed report on estimation of water supply works. (7)

(OR)

- b) Explain principles for report preparation in detail
