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Question Paper Code : 40826

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

Seventh Semester

Civil Engineering

CE 6704 – ESTIMATION AND QUANTITY SURVEYING

(Regulations 2013)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions.

PART – A   (10×2=20 Marks)

1. Summarize the advantages of centre line method over long wall and short wall method.

2. Give the units of measurements for plastering, flooring and painting.

3. List out the factors to be considered in design of septic tank.

4. Describe the methods to determine the area of roads in excavation.

5. Define lump sum contract.

6. Define Arbitrators.

7. List out the different methods of depreciation.

8. Demonstrate the meaning of salvage value.

9. List out methods of valuation.

10. Distinguish between freehold lease hold property.

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PART – B (5×16=80 Marks)

11. a) The Plan and sectional elevation of the building are given in Figure-1. Estimate the quantities for the following items of works. (4×4=16 Marks)
   i) RCC slabs, lintels and sunshades.
   ii) Doors and windows.
   iii) Plastering internal and external.
   iv) Brick work and plastering in steps.

(OR)

   b) The Plan and sectional elevation of the building are given in Figure-1. Estimate the quantities for the following items of works. (4×4=16 Marks)
   i) 1st class brickwork in Super structure CM1:6.
   ii) PCC in foundations.
   iii) Ceiling plastering.
   iv) Earth work in excavation.

Figure – 1
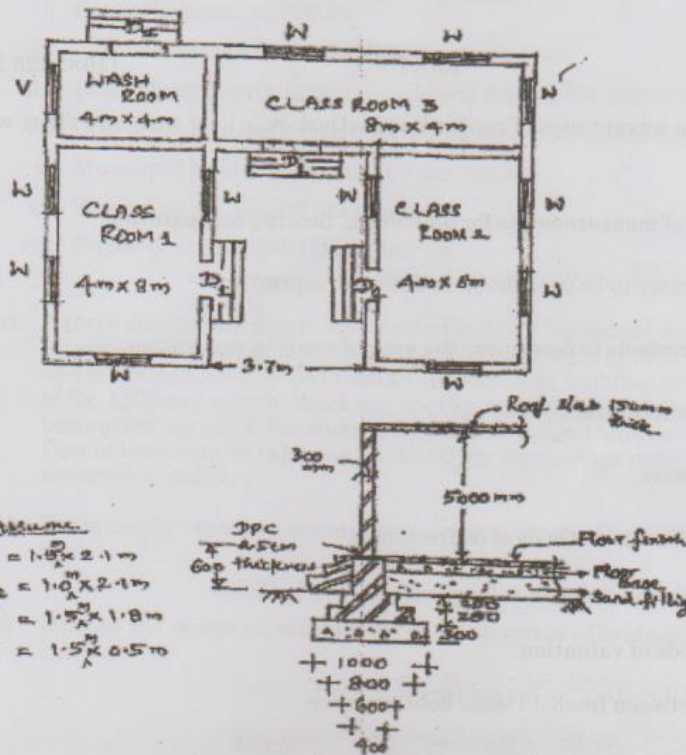(All Dimensions are in mm)

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12. a) Estimate the quantity of earthwork in cutting for a road of 10 m formation width with the following data using mean sectional area method or trapezoidal method. Side slopes is 2:1 (H:V) and no cross slopes. If the cost of cutting is Rs. 160/m^3, estimate the total cost of earthwork.

Chainage	0	30	60	90	120	150
Ground Level	80.5	79.3	81.4	84.0	85.1	85.5
Formation Level	75.0	Rising gradient of 1 in 30				

(OR)

b) The details of a septic tank is shown in Figure-2. Estimate the following items of work.   (4×4=16 Marks)
   i)   Earthwork excavation in foundation.
   ii) Brick work with 1:4 CM.
   iii) 20 mm cement plaster on walls.
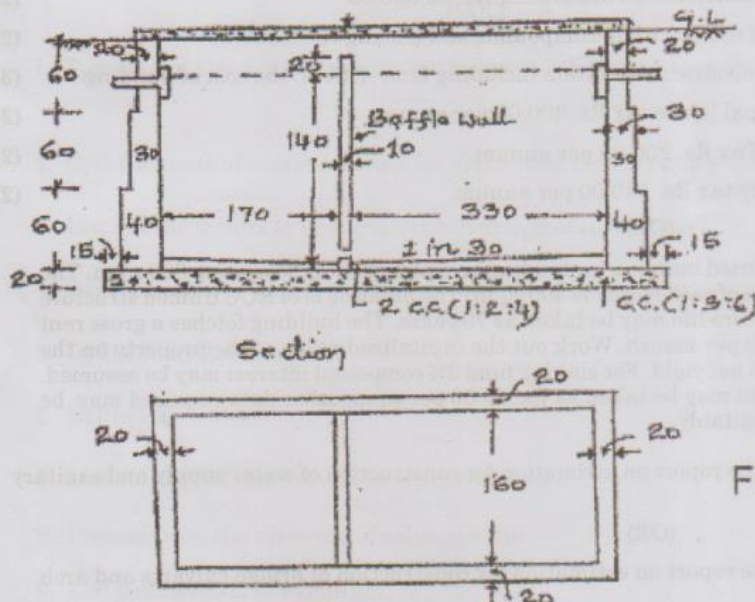   iv) Floor finish in CC 1:2:4 with water proofing compounds.

Figure – 2
(All Dimensions are in mm)

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13. a) Give the detailed specification for the following.

    i) Earthwork in excavation in foundation. (5)

    ii) Lime concrete in roof terracing. (5)

    iii) Centering and shuttering. (6)

(OR)

b) Briefly explain the following.

    i) Schedule of rates. (5)

    ii) Lump sum contract and labour contract. (6)

    iii) Termination of contract. (5)

14. a) Calculate the standard rent of a government residential building newly constructed from the following data.

    i) Cost of land Rs. 10,000.00. (2)

    ii) Cost of construction of building Rs. 40,000.00 (2)

    iii) Costs of roads with in compounds and fencing Rs. 2,000.00 (2)

    iv) Cost of electric installation including fans -10% of the cost of building. (3)

    v) Municipal house tax Rs. 400.00 per annum. (3)

    vi) Water Tax Rs. 250.00 per annum. (2)

    vii) Property tax Rs. 140.00 per annum. (2)

(OR)

b) A three storied building is standing on a plot of land measuring 800 sq.m. The Plinth area of each storey is 400 sq.m. The building is of RCC framed structure and the future life may be taken as 70 years. The building fetches a gross rent of Rs. 1500 per month. Work out the capitalized value of the property on the basis of 6% net yield. For sinking fund 3% compound interest may be assumed. Cost of land may be taken as Rs. 40.00 per sq.m. other data required may be assumed suitably.

15. a) Examine the report on estimation for construction of water supply and sanitary work.

(OR)

b) Discuss the report on estimation for construction of bridge culverts and arch culvert.

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