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Reg. No. :

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Question Paper Code : X20318

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020
AND APRIL/MAY 2021

Seventh Semester

Civil Engineering

CE 6704 – ESTIMATION AND QUANTITY SURVEYING

(Common to PTCE 6704 – Estimation and Quantity Surveying for B.E.

(Part-time) – Sixth Semester – Civil Engineering)

(Regulations 2014)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A

(10×2=20 Marks)

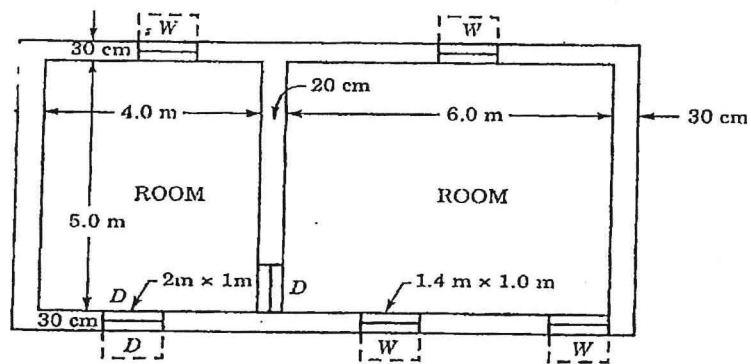
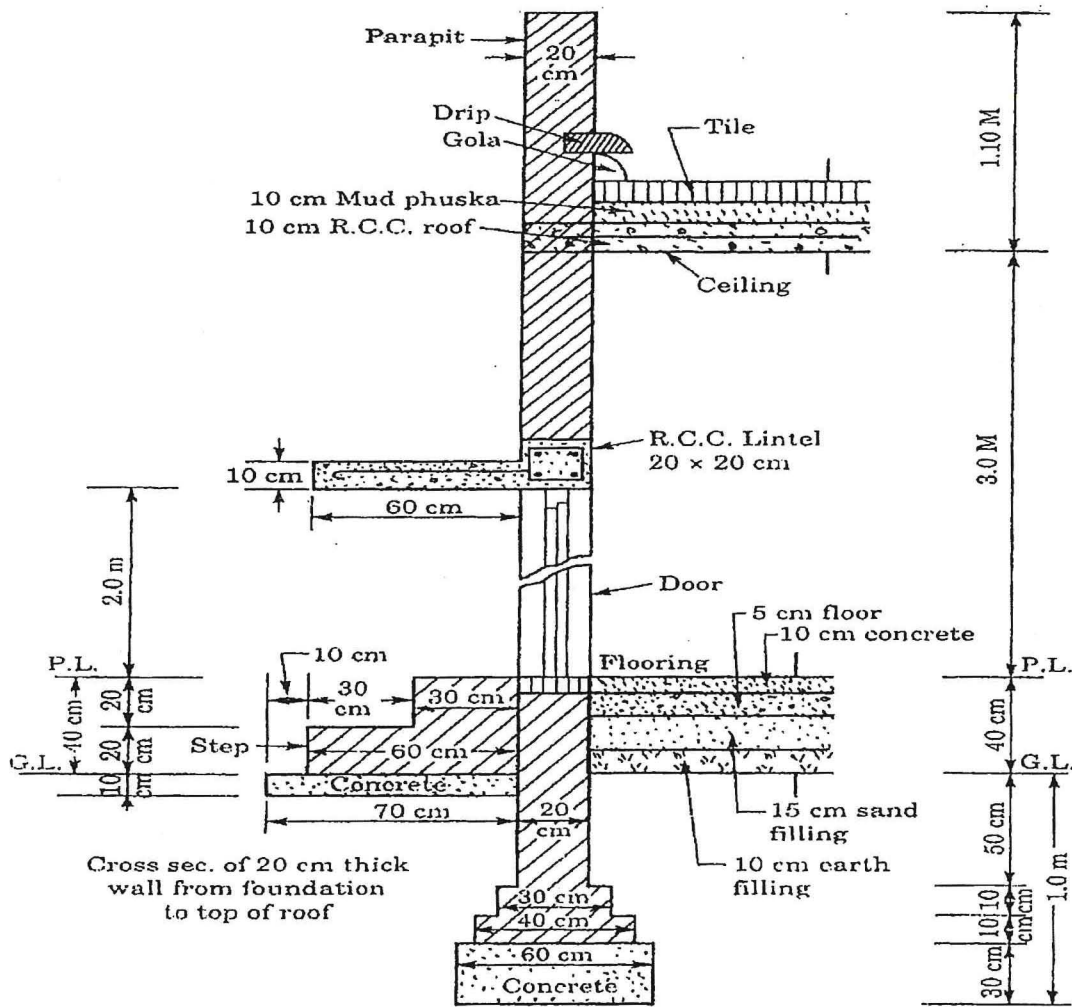
1. List the types of estimates.
2. Name the methods of working out quantities for various items of works.
3. Recall the main components of the culvert.
4. Compare lead with lift.
5. Mention the objects of specification.
6. List the important forms of contract.
7. Rewrite the purpose of valuation.
8. Name the types of outgoings.
9. Recall easement.
10. Write the important annexures to the highway projects.



PART - B

(5×13=65 Marks)

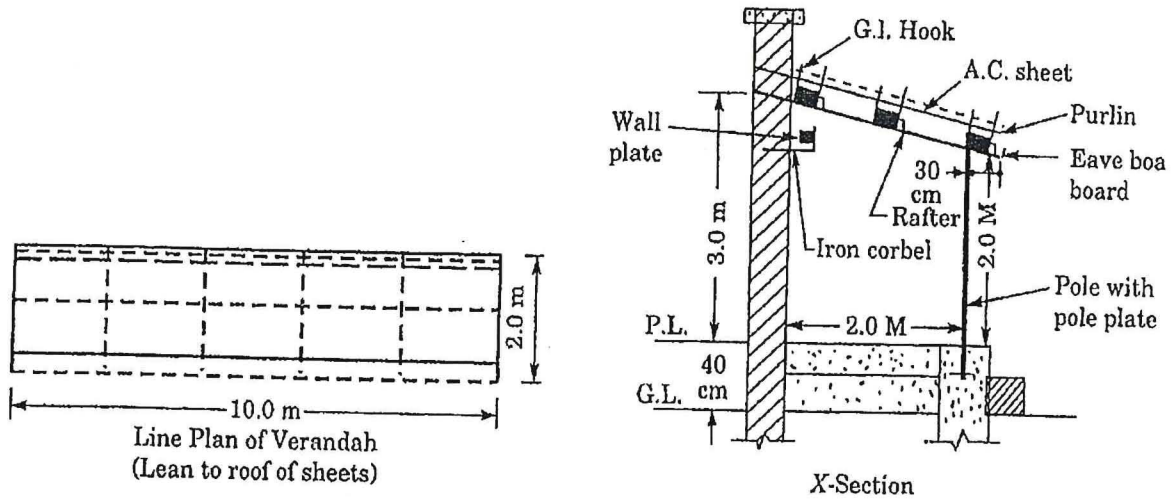
11. a) Estimate the following quantity for the plan shown below (use in-to-in and out-to-out method) (i) Earthwork in excavation in foundation, (ii) Concrete in foundation, (iii) Brickwork in foundation and plinth.



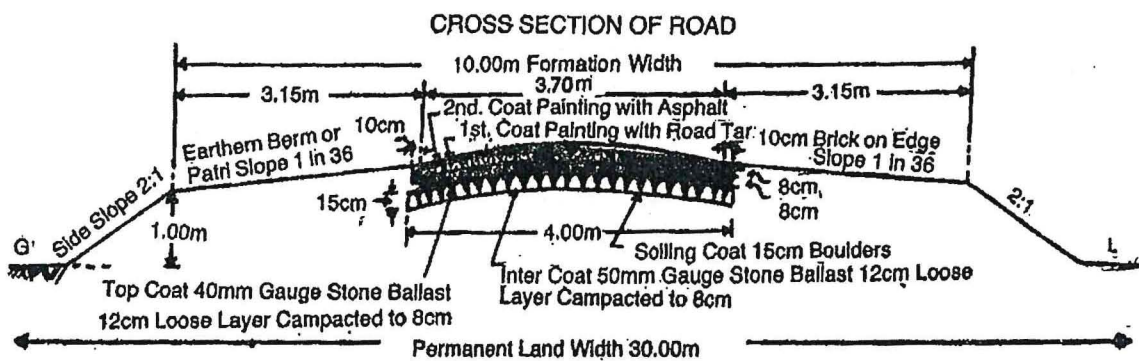
(OR)



- b) Calculate the quantities of (i) corbels (ii) Sal wood work (iii) A.C. sheet roofing (iv) A.C. roofing accessories.



12. a) Prepare a detailed estimate for the construction of new state Highway for one kilometer length. The formation width of road is 10 meter, average height of bank is 1 m and side slope 2:1. The metaled width is 3.70 m and three coats of metaling arc to be provided as per cross section. The surface shall be finished with two coats of painting.



(OR)



b) Prepare a detailed estimate of a septic tank with soak pit

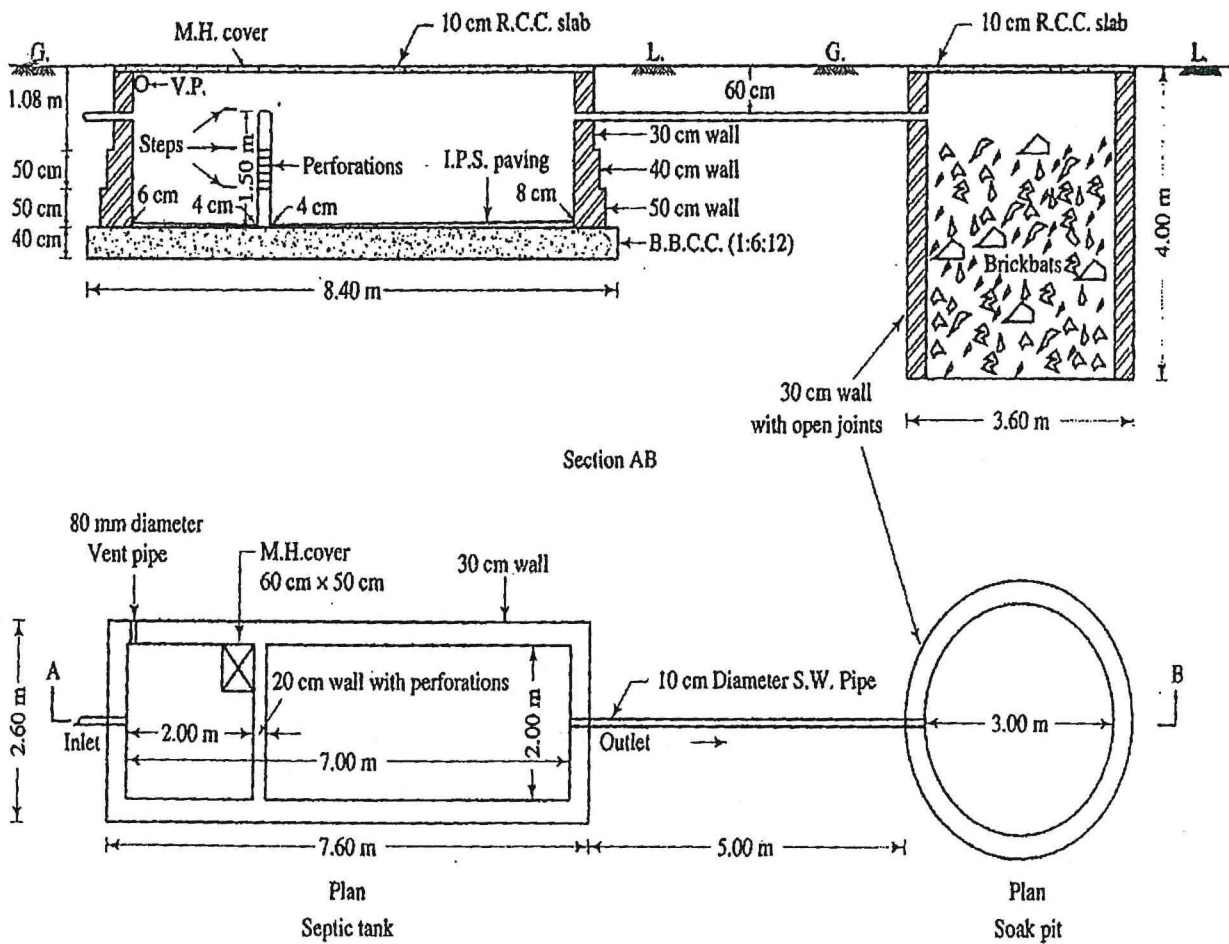
The foundation concrete is to be of B.B.C.C. (1:6:12)

The brickwork is of first class in C.M.(1:6)

The brickwork for soak pit and baffle wall in septic tank is to be carried out with open joints.

The R.C.C. work is to be carried out in proportion (1:2:4) with machine mixing.

The I.P.S. for the flooring is to be of proportion (1:2:4).



13. a) i) List the sources of information in the specification of civil engineering works. **(7)**
- ii) Mention the principles of specification writing. **(6)**
- (OR)
- b) i) Name the types of contracts. **(7)**
- ii) Write the important elements in the tender form. **(6)**
14. a) i) Recall the types of lease. **(7)**
- ii) Classify Mortgages as per transfer of Property Act. **(6)**
- (OR)
- b) i) Write the methods for estimating cost depreciation. **(7)**
- ii) The cost of newly constructed building is Rs. 4,55,000/-. Calculate its write down value (W.D.V) at the end of 25 years by adopting percentage of depreciation as 2.5 and 5. **(6)**
15. a) Summarize the report on the estimate for a road construction. **(7)**
- (OR)
- b) Write the report on estimate for the construction of a culvert. **(7)**

PART – C

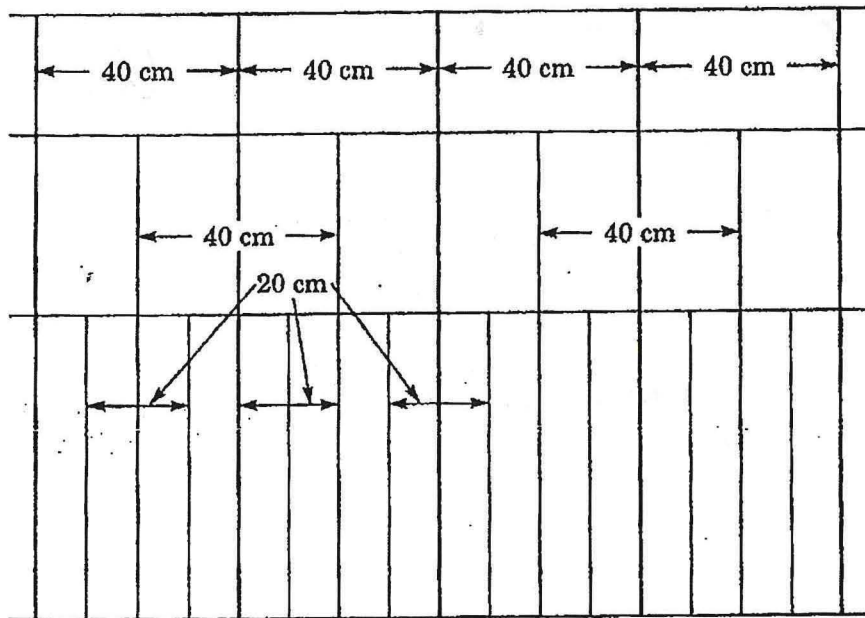
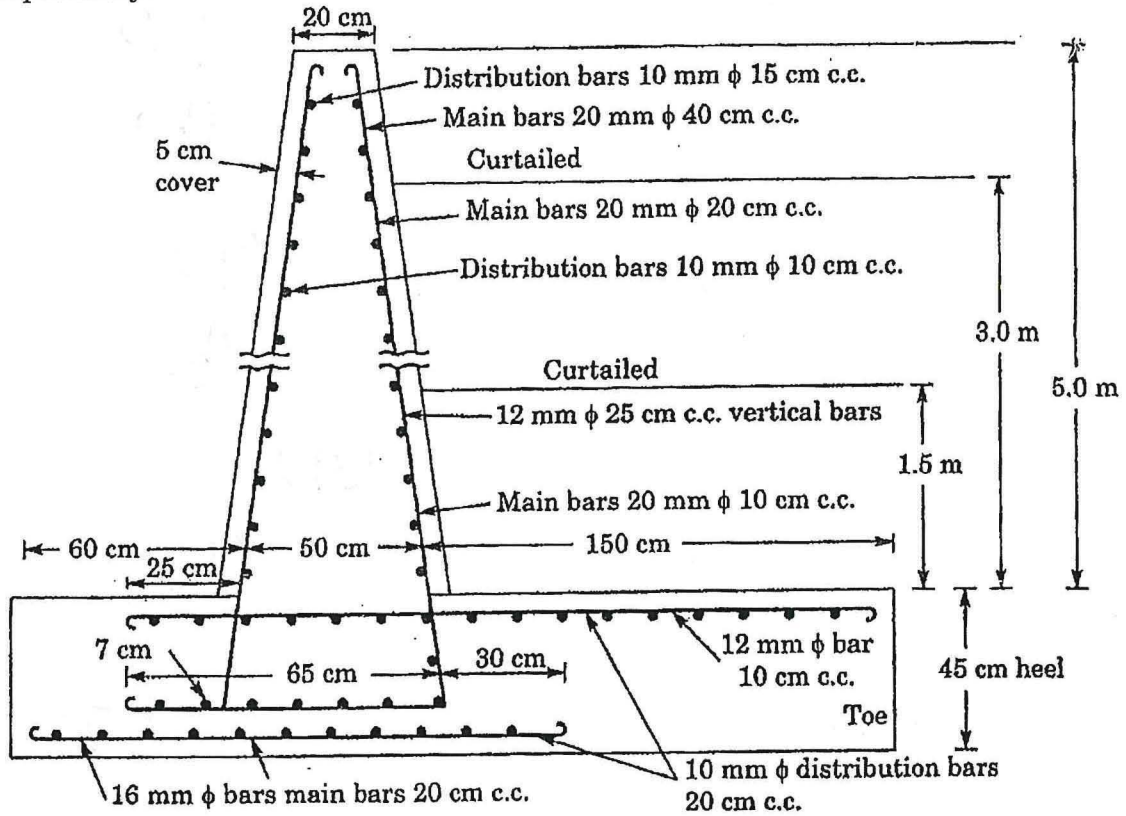
(1×15=15 Marks)

16. a) Reproduce the rate analysis for 1 cu m of (i) cement concrete 1:5:10 in foundation and (ii) First class brick work in foundation and plinth.

(OR)



- b) Prepare a detailed estimate of R.C.C. retaining wall of 25 m in length whose cross section is given below. Steel bars in reinforcement shall have to be taken separately.



Arrangement of 20 mm ϕ main reinforcement bars