

Question Paper Code : 71599

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2017.

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. Define separate or individual wall method.
2. List out the various types of arches.
3. What are all the appurtenances required for septic tank and soak pit?
4. Write down about the tube well and aqueduct.
5. State E-tender.
6. What is called arbitration?
7. Write the purpose of valuation.
8. What is called as depreciation?
9. Write a simple note on how to find a depth of a foundation during writing the report for residential buildings.
10. Write a short note on report preparation of open well.

PART B — (5 × 16 = 80 marks)

11. (a) Estimate the quantities of the following items of work of the building. The plan and sectional elevation of a building are given in Fig. 11(a).
 - (i) 1st class brick work in 1:6 cm in superstructure including parapet. (5)
 - (ii) 12 mm thick cement plastering 1:6 in walls. (5)
 - (iii) White washing 3 coats inside. (3)
 - (iv) Steel reinforcement bars in R.C.C at 1%. (3)

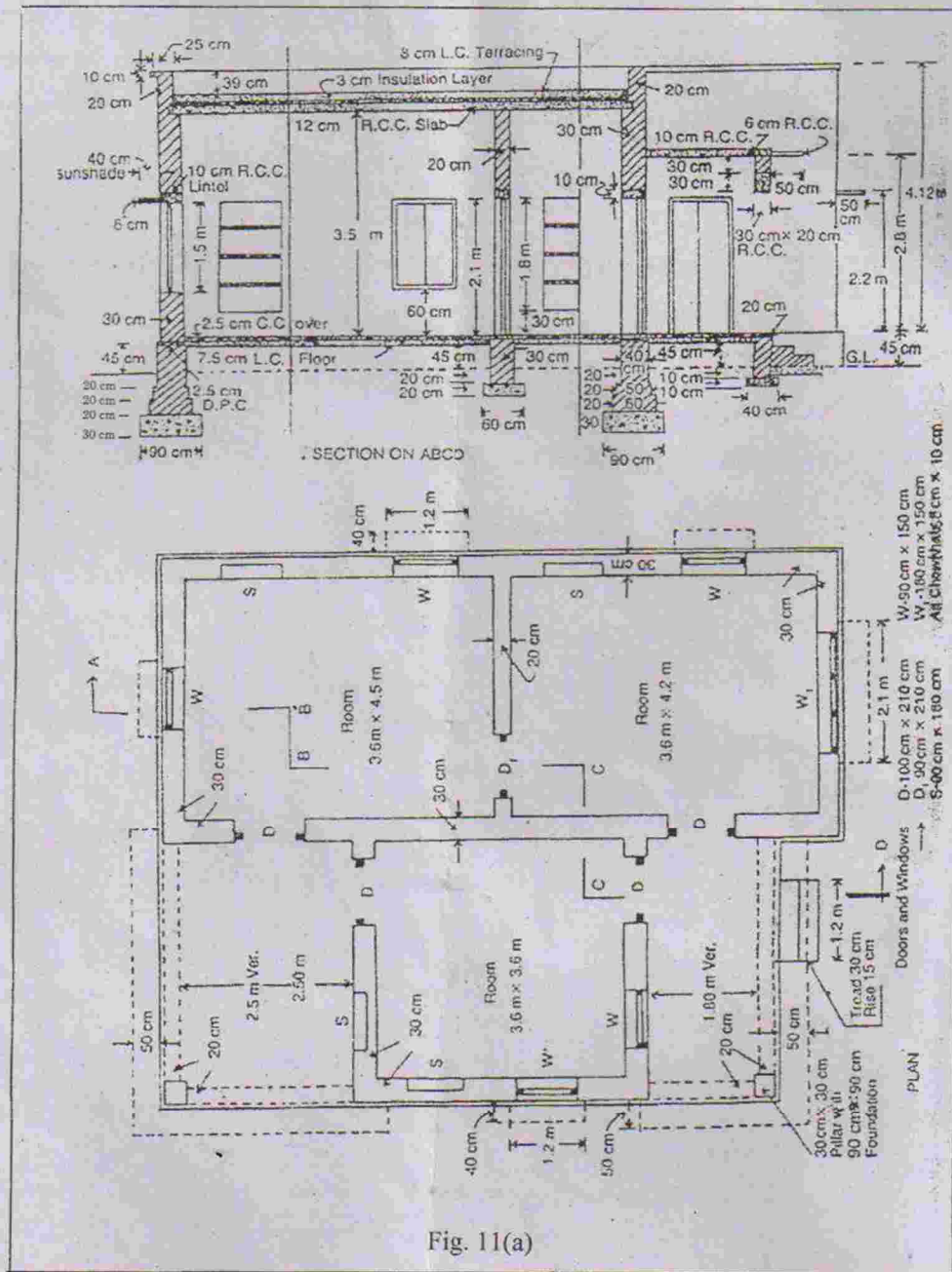


Fig. 11(a)

Or

(b) Prepare a detailed estimate of a small R.C.C. framed building from the given plan, and sectional elevation Fig 11(b). Find also the plinth area rate of building. The general specifications are as follows :

- (i) Cement concrete 1:3:6 in foundation. (3)
- (ii) R.C.C. work 1:2:4 in columns, slab, beams. (3)
- (iii) 1st class brick work in 1:6 cement mortar. (5)
- (iv) Window shutters 4 cm thick glazed of teak wood excluding fittings. (5)

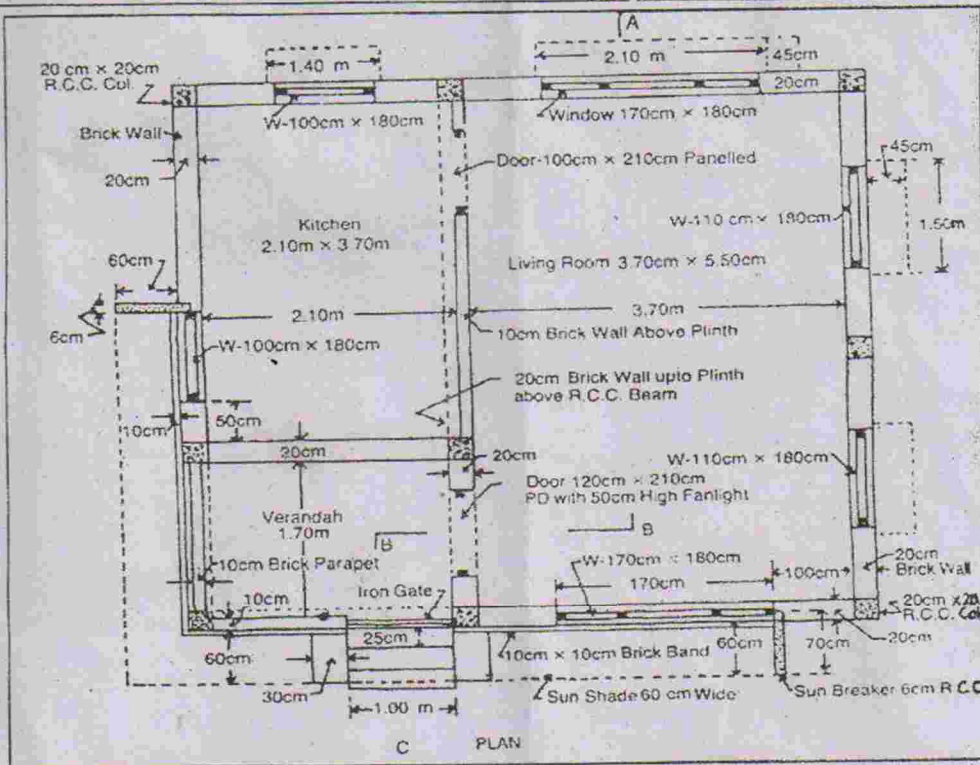
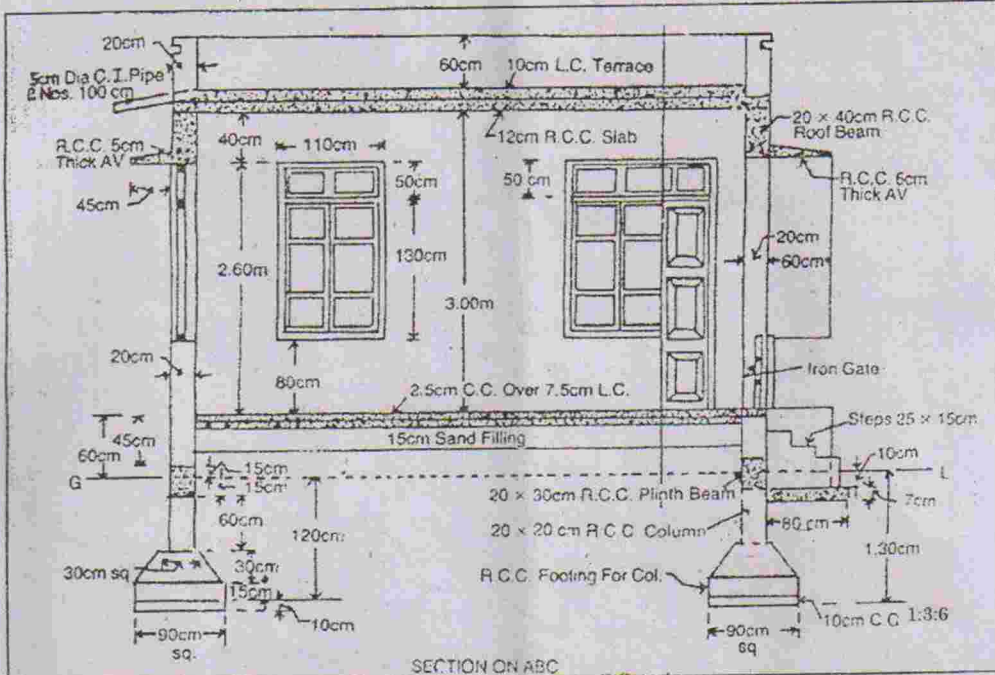


Fig. 11(b)

12. (a) Prepare a detailed estimate of a septic tank with soak pit for 40 users from the given drawings Fig. 12 (a).
- (i) Earth work excavation. (4)
 - (ii) Cement concrete 1:3:6. (4)
 - (iii) First class brick work in 1:4 cm in septic tank. (4)
 - (iv) 100 mm dia. SW. pipe laying and jointing with 1:3 cement mortar complete. (4)

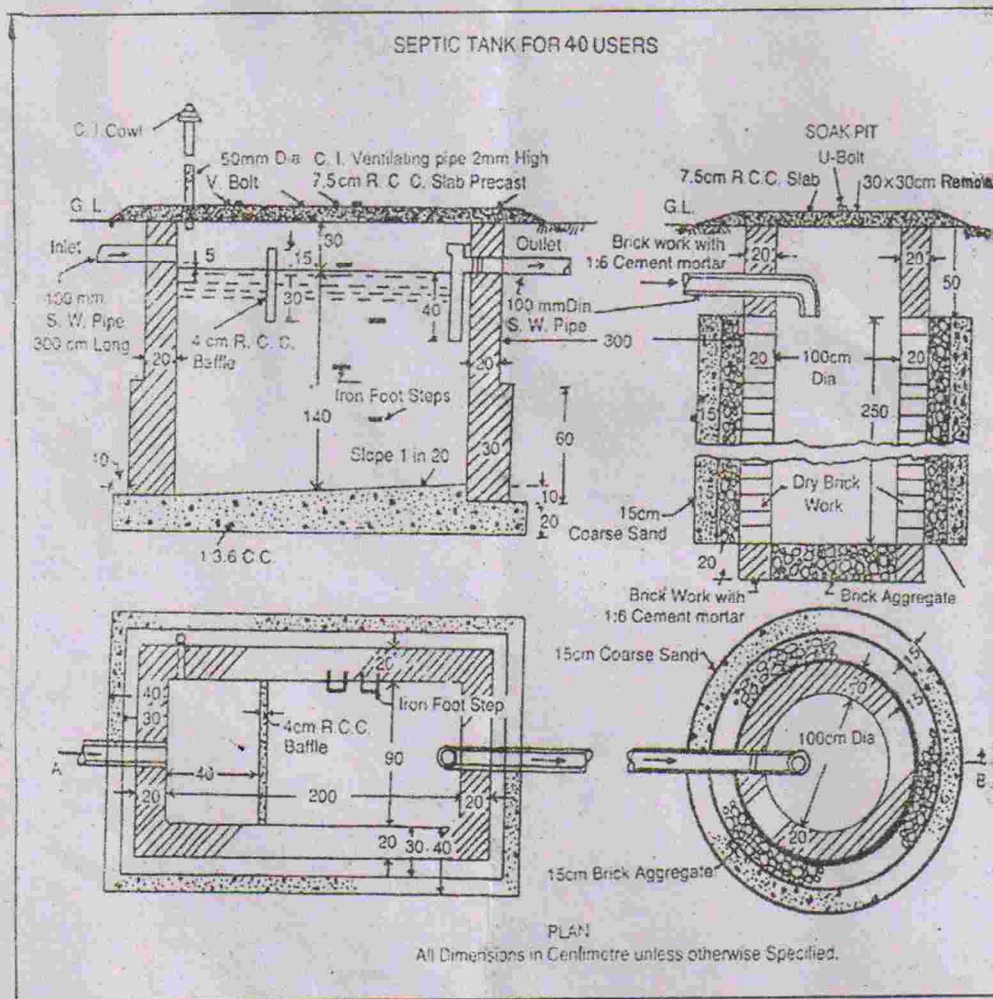


Fig. 12(a)

Or

(b) Prepare a detailed estimate of a slab culvert of 1.50 meter span and 4.00 meter roadway from the given drawing Fig. 12(b). The general specifications are as follows.

- (i) Earth work excavation. (2)
- (ii) Cement concrete 1:3:6 in foundation with stone ballast. (2)
- (iii) 1st class brick work in 1:4 cement mortar – Abutments. (4)
- (iv) R.C.C. work 1:2:4 in slab excluding steel and its bending but including centering shuttering and binding steel. (4)
- (v) Cement pointing 1:2 in walls. (4)

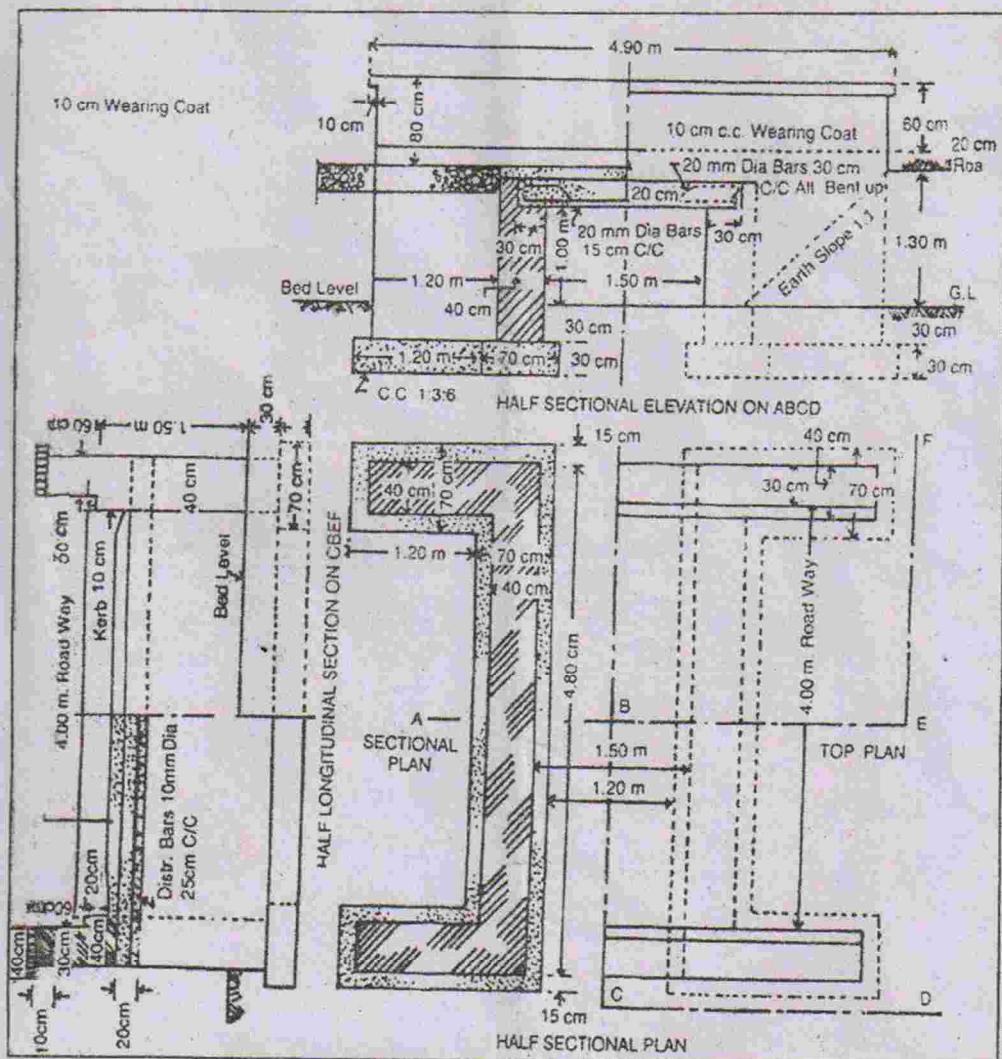


Fig. 12(b)

13. (a) Write a detailed specifications of the followings.
- (i) Earthwork in excavation in foundation. (4)
 - (ii) Cement concrete 1:2:4. (4)
 - (iii) Reinforced cement concrete (R.C.C). (4)
 - (iv) Damp proof course 2.5 cm – 1:1.5:3. (4)

Or

- (b) Briefly explain the each and every heading and items for the preparation of contract document. (16)

14. (a) Describe briefly about the methods of valuation such as follows :

- (i) Rental method of valuation. (2)
- (ii) Direct comparison with the capital value. (2)
- (iii) Valuation based on profit. (2)
- (iv) Valuation based on the cost. (2)
- (v) Development methods of valuation. (4)
- (vi) Depreciation method of valuation. (4)

Or

- (b) A three storied building is standing on a plot of land measuring 1000 sq.m. The plinth area of each storey is 500 sq.m. The building is of R.C.C framed structure and the future life may be taken as 70 years. The building fetches a gross rent of Rs. 2500.00 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 Rs. 100.00 per Sq.m. Other data required may be assumed suitably. (16)

15. (a) Briefly explain the report preparation for estimation of culvert and roads. (16)

Or

- (b) Describe the principles for the report preparation of water supply scheme. (16)