TED (15) – 5014

(REVISION — 2015)

Reg. No. .....

Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

QUANTITY SURVEYING - II

[*Time* : 3 hours

(Maximum marks : 100)

[*Note* :— 1. Missing data may be assumed.

2. Sketches are accompanied.

3. Quantities to be worked out in standard Format.]

PART — A

(Maximum marks : 10)

Marks

I Answer all questions in one or two sentences. Each question carries 2 marks.

1. Write down the standard units of following.

   (a) For R.C.C. work with a nominal mix of 1:2:4 using 20mm metal.

   (b) For pointing the basement.

2. Differentiate between culvert and bridge.

3. Write the meaning of specification.

4. Define Valuation.

5. What is meant by years purchase ? (5×2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. Workout the quantity of earth work excavation in ordinary soil for the building shown in figure - I.

2. A School building having 30m × 6m outer dimension is provided with tiled roof. The rise roof is one third span and eave projection is 60cm. Work out the quantity of roofing with M.P. tiles.

3. Work out the quantity of P.C.C. with a nominal mix of 1:4:8 for foundation of slab culvert shown in figure - IV.

4. Calculate the quantity of R.C.C. for base slab and stem for a retaining wall of length 30m, shown in figure - V.

Marks

5. Write down the detailed specification for cement concrete 1:2:4.

6. List the different methods of calculating depreciation. Explain any one method.

7. Differentiate between salvage value and scrap value. (5×6 = 30)

PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

Unit — I

III (a) Work out the quantity of brick masonry in cm 1:6 for the given building shown in figure - I. 8

(b) Calculate the quantity of earth filling for the given building shown in figure - I. 7

Or

IV Prepare detailed estimate for the following items of a septic tank shown in figure - II.

(i) Cement concrete 1:4:8 for foundation and flooring. 5

(ii) Brick masonry in c.m 1:6 for walls. 5

(iii) R.C.C. 1:2:4 for covering slab and baffle wall. 5

Unit — II

V The accompanying figure - V shows a retaining wall. Work out the quantity of main reinforcement on earthern side of stem thickness for a length of 30m. 15

Or

VI (a) Calculate the quantity of brick masonry in c.m 1:4 for abutment and wing wall for the slab culvert shown in figure - IV. 8

(b) Work out the quantity of R.C.C. with a nominal mix of 1:2:4 using 20mm broken stone for duck slab for the slab culvert shown in figure- IV. 7

Unit — III

VII (a) Calculate the quantity of R.C.C. nominal mix of 1:2:4 using 20mm broken stone for given beam shown in figure - III. 3

(b) Work out the quantity of steel and prepare the bar bending schedule for given beam shown in figure - III. 12

Or

VIII (a) Write the detailed specification of brick masonry in cement mortar 1:6. 8

(b) Write the detailed specification of earth work excavation in ordinary soil. 7

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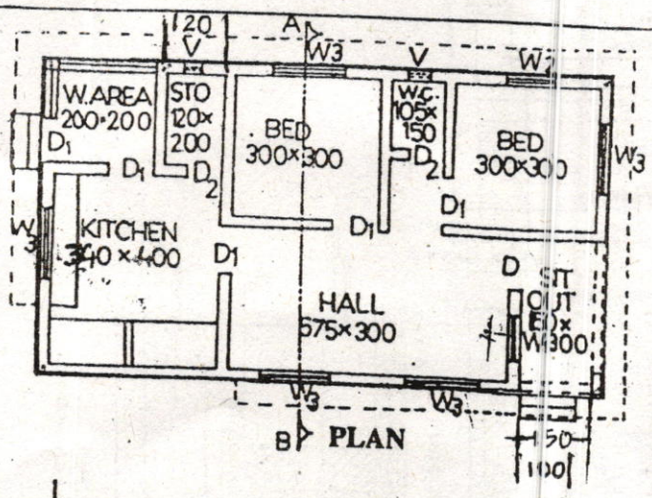


SECTION AB

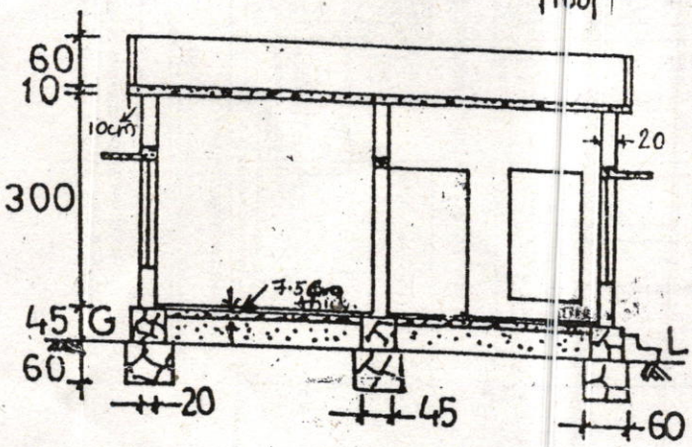
DOORS D - 100x 210
D_1 - 100 x 210
D_2 80 x 210

WINDOWS
W_1 - 100 x 180
W_2 - 100 x 150
W_3 - 150 x 150

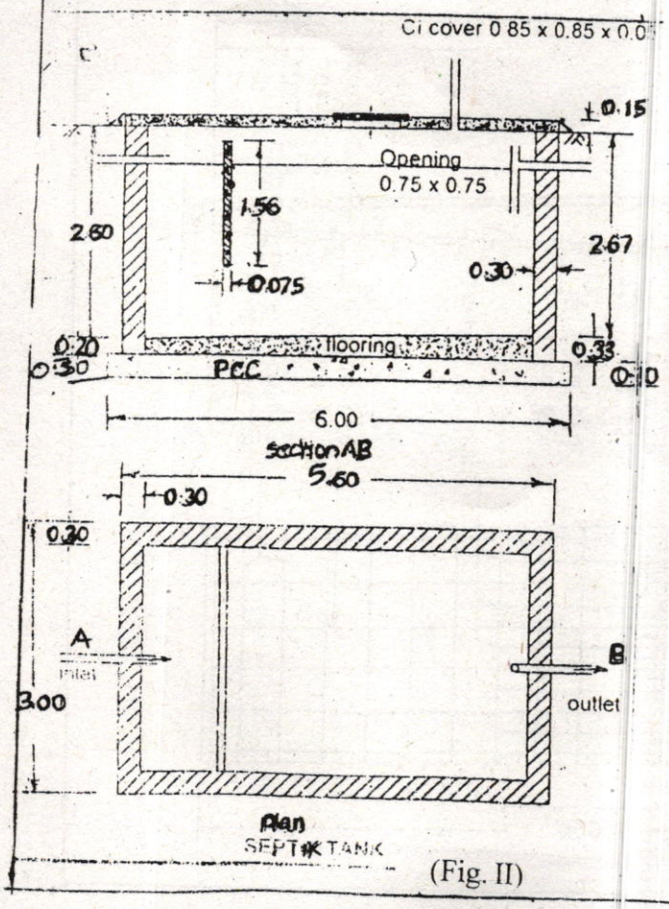
VENTILATORS
V - 60 x 50

PLINTH AREA - 75.57m²

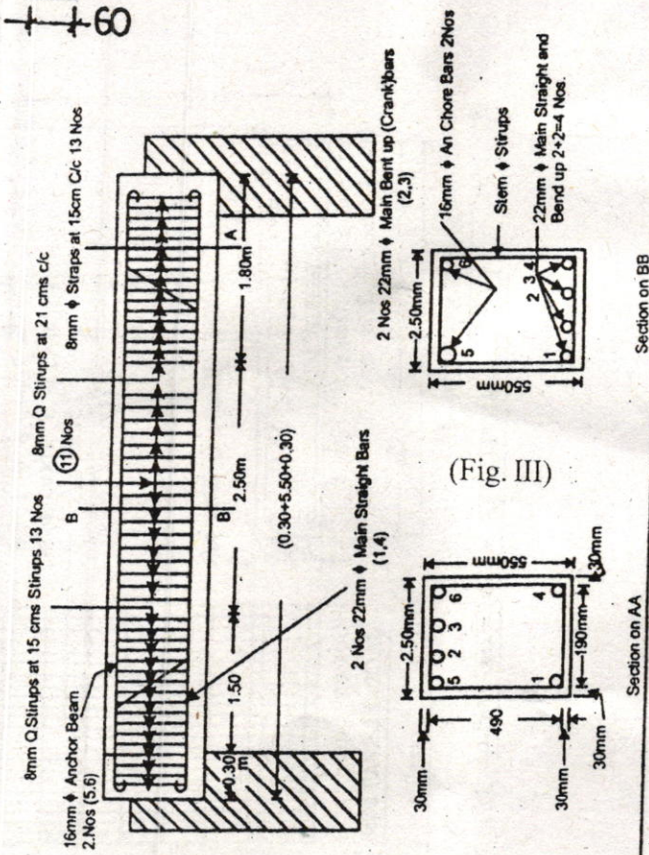
SCALE 1:100
DIMENSIONS IN CMS:



(Fig. I)



(Fig. II)



(Fig. III)

(Fig. IV)

R.C.C. SLAB CULVERT 1·50 m. SPAN
WITH STANDARD MODULAR BRICKS.

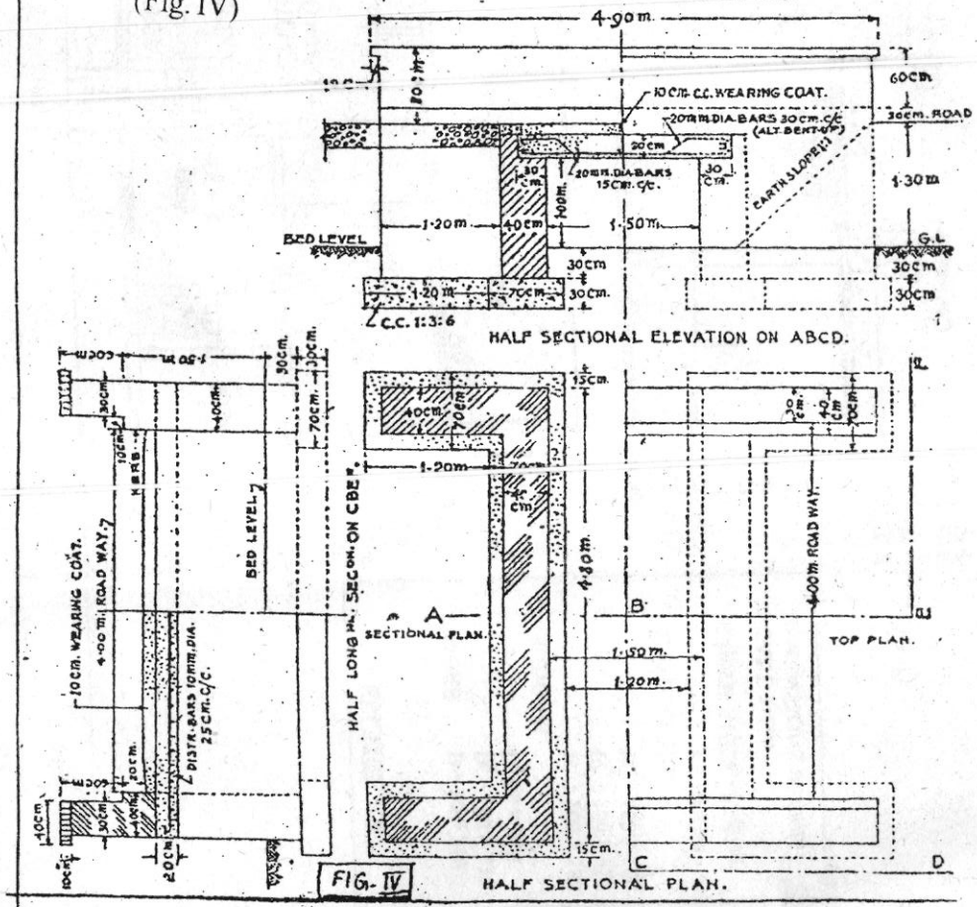
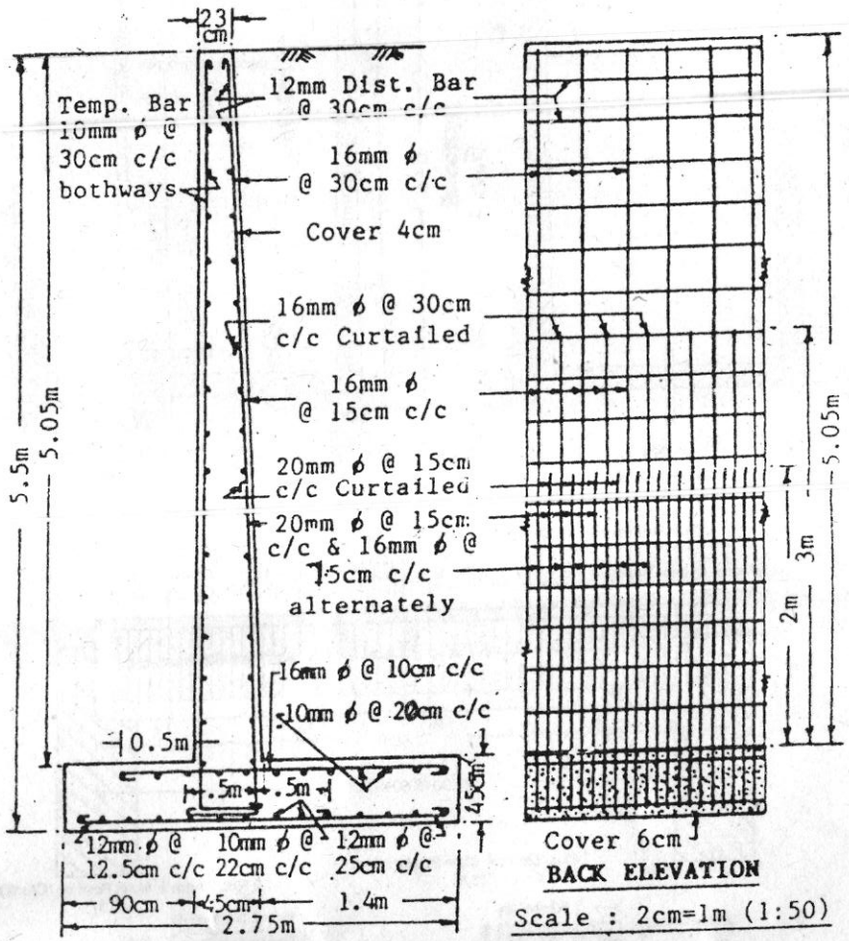


FIG. IV



CROSS SECTION

BACK ELEVATION

Scale : 2cm=1m (1:50)

R.C.C. CANTILEVER RETAINING WALL (Fig. V)

Marks

UNIT — IV

IX (a) List out the different methods of calculating the rent of a building. Explain each method. 6

(b) A building of 150sq.m. is standing over a plot of 800sq.m. The building fetches a gross rent of Rs. 6,000 per month and the future life is 75 years. Work out the capitalized value of the property on the basis of 6% net value yield and sinking fund 4%.

Out goings.

(i) Repairs $^1/_{10}$ of gross rent.

(ii) Property tax 4% of gross rent.

(iii) Insurance @ ½ % of gross rent.

(iv) Management charges @ 5% of gross rent.

(v) Other miscellaneous charges @ 2% of gross rent. 9

OR

X (a) Define sinking fund. An employee of a government office purchased an old building for Rs. 8 lakhs, bases on cost of land Rs. 2 lakhs and cost of building as Rs. 6 lakhs. The scrap value building is assumed to be 10%. Considering the life of building as 25 years. Work out the annual sinking fund at 4% interest rate. 8

(b) Find the value of the property is to be sold rent per month Rs. 4,000. Area of land 300sq.m. Future life of building 50years. Value of the land Rs.1,500/sq.m. Total outgoings 25% of gross rent. Assume interest on capital 8% and redemption 6%. 7