

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/
COMMERCIAL PRACTICE - APRIL - 2022**

QUANTITY SURVEYING – I

- [Note:- 1. Missing data if any suitably assumed.
2. Quantity should be worked out in standard form.
3. Sketches accompanied.]

[Maximum marks: 100]

(Time: 3 Hours)

PART – A

(Maximum Marks: 10)

Marks

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

1. Define Quantity Surveying.
2. Explain initial Lead & Lift
3. Write the unit for the following
(a) Steel (b) Cement
4. What is Conveyance Charge
5. Write the Painting Co-efficient of
(i) Panelled door (ii) Glazed window.

(5 x 2 = 10)

PART – B

(Maximum Marks: 30)

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

1. State the necessity of approximate estimate.
2. Explain standard specification and administrative approval.
3. Write the rules for taking plastering area of building.
4. Write short notes on (i) Lumpsum item (ii) Contingencies (iii) Work charged establishment
5. Calculate the quantity of D.P.C of building (Fig. I)
6. State the prismoidal formula
7. Calculate the number of bricks required for the construction of wall having length 15 mtr. and height 3 mtr. wall thickness 0.20 mtr. using standard bricks. (5 x 6 = 30)

PART – C

(Maximum Marks: 60)

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

UNIT –I

III. (a) What is detailed estimate and abstract estimate. (5)

(b) The details of Road embankment are as follows. There is no transverse slope for the ground Formation width is 9m and side slop 2:1

Distance in mtr.	0	200	400	600	800	1000	1200	1400	1600	1800	2000
RL of Ground	100.00	100.30	100.60	101.10	101.30	102.20	102.50	101.90	102.20	103.20	104.30
RL of formation	101 M	----- Rising gradient 1 in 500 -----									

Calculate the quantity of earth work using Trapezoidal rules. (10)

OR

IV. (a) What are the essential qualities of a good quantity surveyor (7)

(b) Find the capacity of reservoir from 80mtr Contour to 110mtr Contour using Trapezoidal formula from the following data. (8)

Contour in mtr.	80	85	90	95	100	105	110
Area in Sq. M	1300	2400	3800	4900	6200	8700	9800

UNIT-II

V. (a) Which are the rule used for deduction in wall Masonry Quantity Calculation (6)

(b) Calculate the quantity of earth work of building (Fig. 1) (9)

OR

VI. (a) What are the different methods for taking out the building quantities. Explain Centre line Method. (7)

(b) Compute the quantity of R.R masonry of building (Fig. 1) (8)

UNIT-III

VII. (a) Define plinth area and floor area. (6)

(b) Compute the quantity of wall plastering (innerside and outside) of building (Fig. 1) (9)

OR

VIII. (a) Calculate the quantity of R.C.C work for a rectangular water tank with inner dimensions 5 x 3 x 2mtr. And wall thickness 0.3 mtr. (7)

(b) Estimate the quantity of flooring concrete with P.C.C 1:4:8 and 10 cm thickness for building (Fig. 1) (8)

UNIT-IV

IX. Work out the rate of Unit of Quantity of plastering with cement mortar 1:5, 12mm thick, One Coat from the following details. Allow 10% Contractors profit.

Materials for 10m²

0.15³ dry sand @ Rs. 2,600/m³
43 Kg. Cement @ Rs. 6000 per tonne.

Labour

0.90 Brick Mason @ Rs. 500 each
0.55 Man @ Rs. 300 each
1.10 Women @ Rs. 200 each

(15)

OR

X. Work out the rate/Unit of R.C.C 1:1 ½:3 using 20 MM broken stone

Material for 10dm³

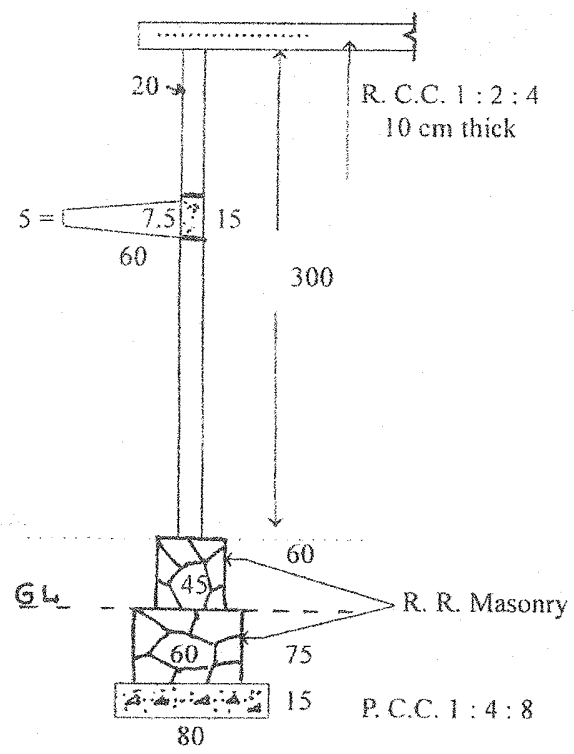
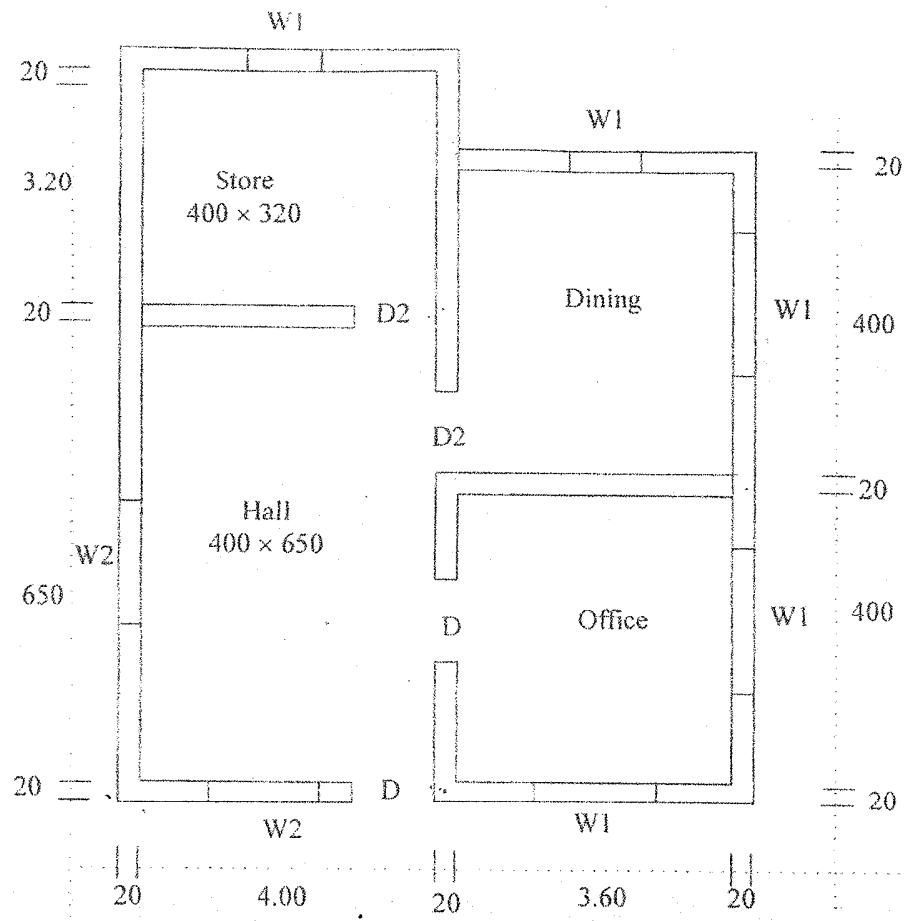
0.009 Cubic metre broken stone @ Rs. 900/M³
0.0045 Cubic metre sand @ Rs. 2600/M³
43 Kg. Cement @ Rs. 6000/Tonne

Labour

0.002 Mason @ Rs. 325/each
0.001 Man @ Rs. 240/each
0.035 Women @ Rs. 240/each

Add 10% Contraction Profit.

(15)



- D—Door 100 x 210 cm
- D2—Door 90 x 210 cm
- W1—Window 150 x 150 cm
- W2—Window 200 x 150 cm
- Lintel 15 cm thick throughout the all wall.
- Sunshade—60 cm width
- 7.5 cm thick at support 5 cm thick at end

Figure-I