

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

QUANTITY SURVEYING - I

[Maximum marks: 100]

(Time: 3 Hours)

PART – A

Maximum marks : 10

- [Note:- 1. Missing data may be suitably assumed
2. Quantities should be worked out in standard form
3. Sketches on 4th page]

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

1. Define contingencies.
2. What are the different methods of taking out measurement for detailed estimate.
3. List the unit of measurement for the following items of work.
(i) Earth work excavation (ii) Brick work (iii) Plastering (iv) D P C
4. State standard data book
5. Show the form of abstract of estimate

(5 x 2 = 10)

PART – B

Maximum marks : 30

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

1. List the duties and requirements of quantity surveyor.
2. Explain any two method of approximate estimate.
3. Illustrate centre line method for computing detailed estimate.
4. Compute the quantity of cement concrete in foundation of fig.I
5. Estimate the quantities of 2cm D P C at plinth level from fig.II
6. Calculate the quantity of cement concrete for cement concreting one kilometre length of 3.70m wide road for 8cm thick layer. Also calculate cost at the rate of Rs.375.00per cu m.
7. List any four general rule for taking measurement of work.

(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) State revised estimate and in what circumstance this is prepared (7)

(b) Prepare a preliminary estimate of building with plinth area of the apartment is 400 m²,

Cost of construction is Rs.1500/m³, Height of apartment is 16.50m. Water supply

sanitary and electrical installations each at 5% of building cost. Architectural

appearance at 1% of building cost. Unforeseen items at 2% of building cost.

P.S. charges and contingencies 4%. (8)

OR

IV.(a) Write short note on (i) Work charged establishment (ii) Sundries (iii) Lumpsum

(iv) Rates (7)

(b) The details of a road embankment are as follows. The formation width is 10m and side

slope 2:1. The formation level is 100.0m. There is no transverse slope. Compute the

quantity of earth work. Using trapezoidal and prismoidal rule. (8)

Chainage in m	0	50	100	150	200
Ground level	97.0	96.5	96.0	97.5	98

UNIT-II

V. (a) Work out the quantity of earth work excavation in ordinary soil from fig.1. (7)

(b) Compute the quantity of brick work in cement mortar 1:6 for super structure

from figure.II. (8)

OR

VI. (a) Determine the quantity of Random Rubble Masonry in cement mortar 1:6 for

foundation and basement from fig.II. (7)

(b) Compute the quantity of brick work in cement mortar 1:6 from fig.I (8)

UNIT-III

VII. (a) Calculate the quantity of flooring by ceramic tiles inside the building Fig.II. (7)

(b) Calculate the quantity of 20mm cement plastering from the given fig.I. (8)

OR

VIII.(a) Find the quantity of earth work of a masonry well of 2.5m dia and depth of 10m.

The stining of wall is 30cm thick first class brick work. (7)

(b) Determine the quantity of painting Panelled doors and glazed windows from fig.II. (8)

UNIT-IV

IX. (a) What is rate analysis? and what are the factors on which analysis of rates depends? (7)

(b) Work out the rate per unit of Random Rubble Masonry 1:6 CM from given data.

Materials/ m^3

1.00 m^3 Rubble @Rs 420/ m^3

0.30 m^3 sand @Rs 2777.0/ m^3

72kg cement @Rs 5940/ton

Labour

0.7 mason @Rs471/each/day

0.35 men @Rs.377/each/day

0.7 woman @Rs.377/each/day

Add 10% profit for the contractor. (8)

OR

X. (a) Explain the method preparing abstract of estimate. (7)

(b) The detailed quantities of items are given below. Compute the total cost of work in an abstract estimate form. (8)

1	Earthwork excavation	7.07 m^3 @Rs 350/ m^3
2	Random Rubble Masonry for foundation and basement	4.1 m^3 @Rs 900/ m^3
3	Brick work in Superstructure	12.6 m^3 @ Rs1500/ m^3
4	Doors and windows	1.1 m^3 @ Rs 5000/ m^3
5	Plastering	171 m^2 @Rs 250/ m^2
6	Sanitary and electrification, Water supply	15% of cost
7	Unforeseen items	2% of cost

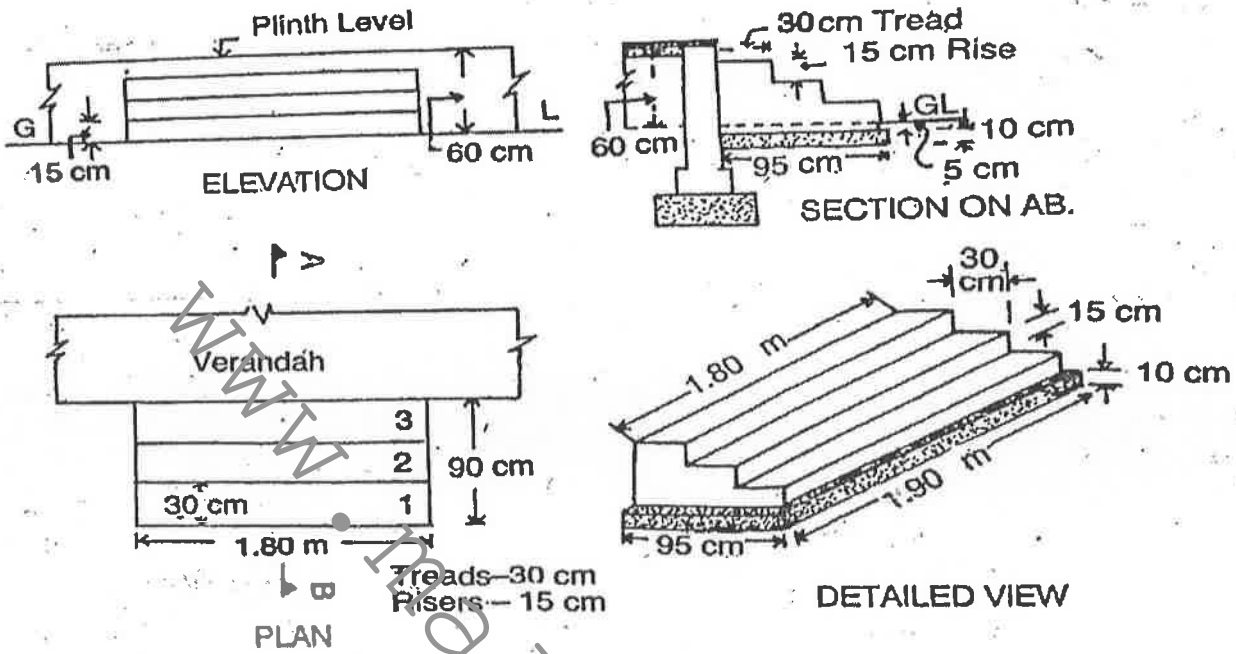


Fig. 1

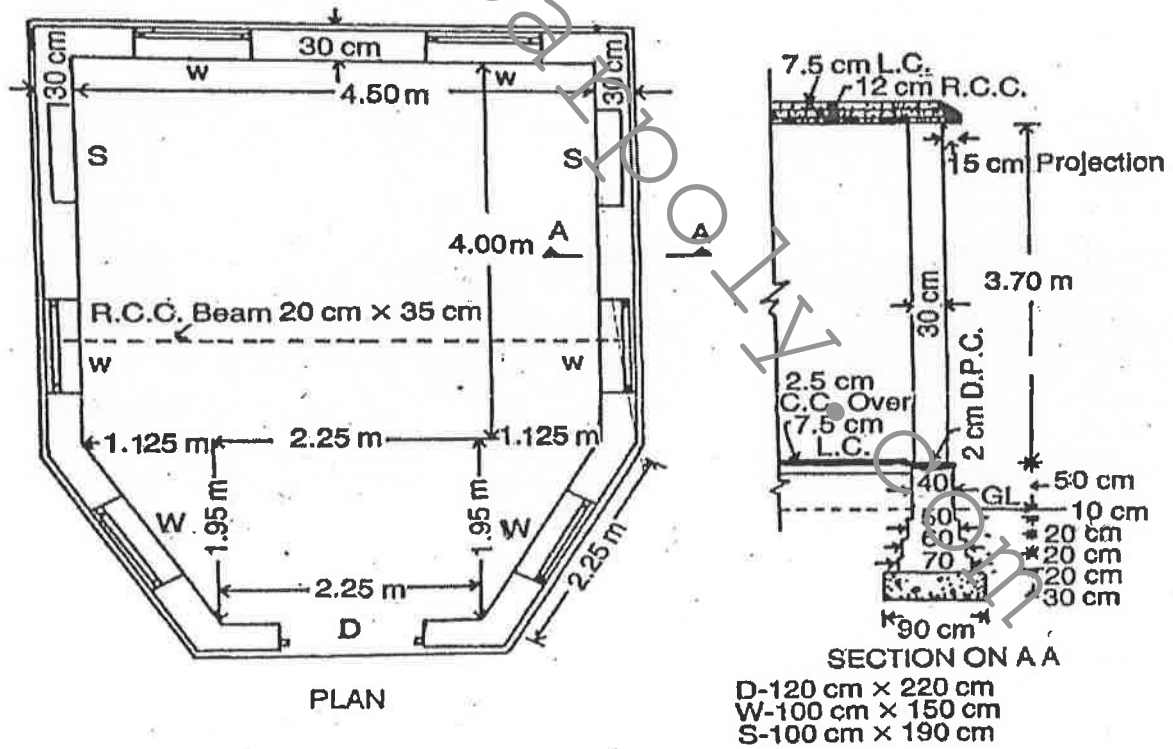


Fig II
