

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, NOVEMBER-2021**

QUANTITY SURVEYING - II

[Maximum marks: 75]

(Time: 2.15 Hours)

[Note:- 1. Missing data may be assumed.

2. Sketches are accompanied.

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

PART – A

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

1. Write the length of a common rafter in terms of the eave span if the rise of the roof is $\frac{1}{3}$ span.
2. Write the purpose for which Abutment and wing wall are provided in Culvert.
3. Write the total length of a bar hooked and bend up on both sides.
4. Define Valuation.
5. Define Book value.

(3 x 2 = 6)

PART – B

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

1. Work out the quantity of earthwork excavation for the building shown in figure I.
2. Calculate the quantity of plastering for the septic tank shown in figure IV.
3. Work out the quantity of cement concrete 1:4:8 in foundation for the bridge pier shown in figure II.
4. Write detailed specification of painting.
5. Work out the quantities of cement concrete 1:4:8 in base and RCC work 1:2:4 in footing for the RCC column with square footing shown in figure III.
6. List the methods of valuation. Explain any two methods.
7. An owner of a building deposit Rs.25,000/-every year as sinking fund at 6% interest rate. Calculate the amount available with him after 25 years.

(4 x 6 = 24)

PART – C

(Answer *any of the three units* from the following. Each full question carries 15 marks)

UNIT –I

III. Work out the quantity of following items from figure I of residential building.

- (i) Cement concrete 1:5:10 for foundation. (3)
- (ii) RR masonry in CM 1:6 for foundation and basement. (6)
- (iii) Brick masonry in CM 1:6 for superstructure. (6)

OR

IV. Work out the quantity of following items from figure IV of a septic tank.

- (i) Earthwork in excavation. (3)
- (ii) Cement Concrete 1:3:6 (6)
- (iii) First class brickwork in CM 1:4 (6)

UNIT-II

V. Compute the quantity of following items from figure V of RCC retaining wall.

- (i) Steel bars in reinforcement for stem. (8)
- (ii) Steel bars in reinforcement for base slab. (7)

OR

VI. Compute the quantity of following items from figure II. of a bridge pier.

- (i) Earthwork excavation. (3)
- (ii) Brickwork in CM 1:5 from footing to springing level. (12)

UNIT-III

VII. Cross section of a RCC square column with square footing with base 1x0.20m is shown in figure III. Prepare a detailed estimate of steel bars and bar bending schedule. (15)

OR

- VIII.(a) Write the detailed specification for DPC 2.5cm with CC 1:1.5:3. (8)
- (b) Write the detailed specification for pointing. (7)

UNIT-IV

- IX. (a) Define the terms scrap value, salvage value and market value. (6)
- (b) Find out at what cost the following property is to be sold. Rent per month = Rs.3500/-

Area of land = 300m^2 . Future life of the building = 40 years. Value of the land = Rs.1000/-per m^2 . Total outgoings = 25% of gross rent. (9)

OR

X. (a) The total cost of a newly constructed building is Rs.9 Lakhs. Find the depreciated cost of the building after 25 years by straight line method and constant percentage method if the scrap value is Rs.80,000/-. Assume the life of building as 80 years. (6)

(b) In a plot of land costing Rs.20,000 a building has been newly constructed at a total cost of Rs.80,000 including sanitary and water supply works, electrical installation etc. The building consists of four flats for four tenants. The owner expects 8 percent return on the cost of construction and 5 percent return on the cost of land. Calculate the standard rent for each flat of the building assuming:

- (i) The life of the building as 60 years and sinking fund created on 4% interest basis.
- (ii) Annual repairs cost at 1% of the cost of construction.
- (iii) Other outgoings including taxes at 30% of the net return on the building. (9)



