



BRAINWARE UNIVERSITY

Term End Examination 2024-2025
Programme – B.Tech.(CE)]-2021
Course Name – Estimation and Costing
Course Code - PCC-CE702
(Semester VII)

Library
Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Choose the appropriate unit of measurement for brickwork in a construction project.
 - a) Square meter
 - b) Cubic meter
 - c) Meter
 - d) Kilogram
- (ii) Write the formula for calculating the unit rate of payment.
 - a) (Total Cost / Total Quantity)
 - b) (Labor Cost + Material Cost)
 - c) (Cost Per Unit x Number of Units)
 - d) (Material Cost / Time Duration)
- (iii) Act by identifying the type of estimate used for public works that is prepared annually.
 - a) Detailed Estimate
 - b) Annual Maintenance Estimate
 - c) Supplementary Estimate
 - d) Abstract Estimate
- (iv) Write the necessary steps involved in preparing a bar bending schedule.
 - a) List bar types, calculate lengths, detail bend shapes
 - b) Estimate total project costs, allocate funds, measure progress
 - c) Define material types, hire labor, allocate storage
 - d) Choose the contractor, arrange finances, begin construction
- (v) Act by determining the appropriate quantity of steel required for a beam.
 - a) By using the bar bending schedule
 - b) By calculating total concrete volume
 - c) By checking the blueprint
 - d) By estimating manually
- (vi) Classify the type of concrete work involved in constructing an RCC underground reservoir.
 - a) Earthwork
 - b) PCC
 - c) RCC
 - d) Plastering
- (vii) Select the work that requires detailed rate analysis due to varied labor costs.
 - a) Brick Flat Soling
 - b) Earthwork

- c) DPC
 (viii) List the finishing work necessary after brickwork completion.
 a) Earthwork
 c) Plastering
 (ix) Identify the finish obtained from distempering.
 a) Glossy
 c) Textured
 (x) List the factors that affect the market value of a property.
 a) Location, age, legal rights
 c) Climate, neighbors, landscape
 (xi) State the term that refers to an asset's remaining value after deducting all depreciation.
 a) Market value
 c) Scrap value
 (xii) List the items where rate analysis is applied.
 a) Earthwork, brickwork, cement concrete
 c) Interior design, landscaping, roofing
 (xiii) Select the correct rate component for market rate.
 a) Material cost
 c) Transportation charges
 (xiv) Select the correct factor for estimating the cost of flooring.
 a) Market rate
 c) Labor rate
 (xv) State the type of analysis used to determine the cost of painting.
 a) Rate analysis
 c) Cost-benefit analysis
- d) Plastering
 b) PCC
 d) Excavation
 b) Smooth matte
 d) Transparent
 b) Size, style, color
 d) Shape, season, culture
 b) Salvage value
 d) Book value
 b) Electrical wiring, plumbing, HVAC
 d) None of these
 b) Contractor's profit
 d) Overheads
 b) Load factor
 d) Overheads
 b) Quantity analysis
 d) Performance analysis

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Modify the unit rate of payment for different items of work. (3)
3. Discuss the differences in rate analysis for DPC and RCC. (3)
4. Describe the specifications of first-class brickwork. (3)
5. Discuss the difference between market value and book value. (3)
6. Consider the importance of accurate measurement in quantity estimation. (3)

OR

Evaluate the use of bar bending schedules in construction projects. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Modify the estimate process for a multi-storied building. (5)
8. Classify the different units of measurement for various items of work. (5)
9. Consider the significance of quantity estimation in surface drain construction. (5)
10. Modify the calculation for deferred income in property valuation. (5)
11. Write the steps for calculating the book value of an asset over time. (5)
12. Classify the various types of cement used in RCC construction and their key properties. (5)

OR

Explain the specifications of aggregates used for high-strength concrete. (5)