

S.No. : 342

AR 1604

No. of Printed Pages : 06

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 10135

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B. Arch. Examination 2021-22

(Even Semester)

SPECIFICATION, COST ESTIMATION & BUDGETING

Time : Three Hours]

[Maximum Marks : 60

Note :- Attempt each question.

SECTION-A

1. Attempt all parts of the following : $8 \times 1 = 8$

- (a) Earthwork in foundation.
- (b) Preliminary estimate.
- (c) Plinth area method.

[P. T. O.]

- (d) Purpose of costing.
- (e) C. P. W. D. schedule of rates.
- (f) Types of specifications.
- (g) Abbreviations used in specifications.
- (h) Damp proof course.

SECTION – B

2. Attempt any three parts of the following : $4 \times 3 = 12$

- (a) What do you understand by the terms general specifications and detailed specifications of a building? Explain the difference.
- (b) What is analysis of rates? Work-out the rate per cubic meter of cement concrete 1 : 2 : 4. Assume suitable market rates of materials and labour in your town.
- (c) Write short notes on the following :
 - (i) Work-order
 - (ii) Measurement Book (M. B.)

- (d) Describe and distinguish the following :
- (i) Analysis of rates and schedule of rates
 - (ii) Revised estimate and supplementary estimate

SECTION - C

Note :- Attempt any two questions of the following.

2×20=40

3. (a) Estimate quantities of any four of the following items of works in the building as per given plan and schedule (attached on separate sheet) :

Schedule :

All dimensions are in millimeters.

All walls are 200 mm thick.

Door $D_1 = 1000 \times 2100$ and $D_2 = 800 \times 2100$

Window $W_1 = 1200 \times 1500$ and $W_2 = 900 \times 450$

Door and windows frame = 100×60

Foundation same for all walls.

[P. T. O.]

Data :

Floor to ceiling height - 3000

RCC roof slab thickness - 120

RCC band at lintel level - 150

Lintel height - 2100 and plinth height - 600

Lime concrete thickness in foundation - 250

Width of foundation - 900

- (a) Lime concrete in foundations.
- (b) RCC work in roof slab and lintel band.
- (c) Plastering outside building including plinth height.
- (d) Sab wood in door and window frames.
- (e) Distempering inside the room and ceiling.
- (f) 25 mm thick DPC in cement concrete (1:2:4)

4. Attempt the following :

- (a) State different types of estimate and explain any two.
- (b) What are the documents required for preparing detailed estimate of a building? Explain each in brief.

(c) Prepare approximate estimate of a building having plinth area of 1800 sq. mt. using the following :

- (a) Plinth area rate = ₹ 12,000 per sq. mt.
- (b) Contingencies @ 8%.
- (c) Work charge establishment @ 2%.
- (d) Water supply and sanitary arrangements @ 20%.
- (e) Electrification @ 10%.
- (f) Architectural fee @ 3%.

5. Write detailed specifications on the following :

- (a) Lime-concrete in foundations
- (b) Plastering with cement mortar
- (c) Cement concrete (1 : 2 : 4)
- (d) First class brick
- (e) D. P. C.

Attachment to Question No. 3

