



PAPER ID-310674

Printed Page: 1 of 2

Subject Code: KCE503

Roll No:

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BTECH

(SEM V) THEORY EXAMINATION 2024-25

QUANTITY ESTIMATION AND CONSTRUCTION MANAGEMENT

TIME: 3 HRS

M.MARKS: 100

Note: Attempt all Sections. In case of any missing data; choose suitably.

SECTION A

1. Attempt all questions in brief.**2 x 10 = 20**

Q no.	Question	CO	Level
a.	What data required for the preparation of estimates?	1	K1
b.	What are network techniques in project management?	1	K1
c.	What is the Schedule of rates?	2	K1
d.	Define contingent contract.	2	K1
e.	What are network techniques in project management?	3	K1
f.	Give the two names of compaction equipment.	3	K1
g.	What are the five stages of the project life cycle?	4	K1
h.	Define dummy activity.	4	K1
i.	Give the objective of motion study.	5	K1
j.	What are the four types of time value of money?	5	K1

SECTION B

2. Attempt any three of the following:**10 x 3 = 30**

a.	Prepare a preliminary estimate of building of a building with a total plinth area of all building is 1500sq.m. and from following data. 1. Plinth area rate - Rs. 9500/ m ² 2. Special architectural design – 1.5% of building cost. 3. Water supply and Sanitary - 5% of building cost. 4. Electrical Installation - 14% of building cost. 5. Services - 6% of building cost. 6. Contingencies - 3% of building cost. 7. Supervision - 8% of building cost. Determine the total cost of building project.	1	K2
b.	Give the stages of the tendering process.	2	K2
c.	Prepare rate analysis of plaster for a plastering work in cement mortar 1:4. Thickness of plaster is 12 mm & area of wall is 100 m ² . Scaffolding lump sum amount Rs 750.	3	K2
d.	Explain the factors affecting the selection of equipment.	4	K2
e.	Explain discounted cash flow methods.	5	K2

SECTION C

3. Attempt any one part of the following:**10 x 1 = 10**

a.	Figure shows a room of internal dimension 4.0 m x 2.5 m. Calculate the quantities of the following items of work by long and short wall method. (i) Excavation in foundation (ii) Lime concrete in foundation (iii) Brick work in cement mortar (1:4) in foundation and plinth (iv) Brick work in cement mortar (1:6) in super structure (v) 2.5 cm thick D.P.C.	1	K2
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b.	Write the factors to be considered from the preparation of detailed estimates.	1	K2

4. Attempt any one part of the following:

10 x 1 = 10

a.	Work out quantity of dry material and labours for 150 mm thick R.C.C. slab for M20 grade and size of slab is 10 m x 10 m.	2	K2
b.	What do you mean by evaluation of tender? Explain all the stages involved in the evaluation of tender.	2	K2

5. Attempt any one part of the following:

10 x 1 = 10

a.	Write the responsibility of construction manager.	3	K2
b.	How does PERT technique help a business manager on decision making?	3	K2

6. Attempt any one part of the following:

10 x 1 = 10

a.	Differentiate between Crawler mounted dozer and wheel dozers	4	K2
b.	Discuss the relationship between project planning, project scheduling and project control with flow diagram.	4	K2

7. Attempt any one part of the following:

10 x 1 = 10

a.	What do you understand by project financing also write the project financing process.	5	K2
b.	Discuss the principle of equivalence. Draw the sketch of cash flow diagram.	5	K2