Sub Code: RCE503

Paper Id: | **100528** | **Roll No:** | | | | | | | | | | | |

B. TECH
(SEM V) THEORY EXAMINATION 2019-20
QUANTITY ESTIMATION & MANAGEMENT

Time: 3 Hours   *Total Marks: 70*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1.   **Attempt *all* questions in brief.**   **2 x 7 =14**

a.	Define most likely time and mean time.
b.	Define Contract.
c.	Differentiate between free float and total float.
d.	Enlist the main items of work used in estimation of buildings.
e.	What do you mean by critical path of a project network.
f.	Differentiate between Event and Activity.
g.	What do you mean by Land Acquisition?

SECTION B

2.   **Attempt any *three* of the following:**   **7 x 3 =21**

a.	What are different types of construction contracts and state their main attributes.
b.	Explain the different types of specifications and their importance in construction project.
c.	Briefly describe various equipments, which are used for placing concrete along with their comparative advantages and disadvantages.
d.	Describe the various types of estimation that are used in estimation of building.
e.	Estimate the quantities of brickwork and plastering required in a wall 4 m long, 3m high and 30cm thick. Calculate also the cost if the rate of brickwork is Rs. 320.00 per cu.m. and of plastering is Rs. 8.50 per sq.m

SECTION C

3.   **Attempt any *one* part of the following:**   **7 x 1 =7**

(a)	Explain bar chart. What were the problems in the bar charts that lead to development of network technique?
(b)	What do you mean by CPM and PERT? Illustrate with examples the differences between CPM and PERT.

4.   **Attempt any *one* part of the following:**   **7 x 1 =7**

(a)	What do you mean by cash flow diagram? How it is classified?
(b)	Differentiate between breakeven point and minimum cost point.

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5. **Attempt any *one* part of the following:**   **7 x 1 =7**

| (a) | What are the various steps for evaluation of Tenders? |
| (b) | What are the general guidelines for monitoring the extra item on construction site? |

6. **Attempt any *one* part of the following:**   **7 x 1 =7**

| (a) | With the following data of activities of a project. Develop a suitable network for programming by CPM |

Activity	A	B	C	D	E	F	G
Predecessors	-	A	B	B	D	C, E	F
Duration (days)	5	6	14	8	5	9	6

F and G are terminal acitivities.
Determine: Project completion time, The critical path & total float for each activity

| (b) | Differentiate between variation of direct and indirect cost. |

7. **Attempt any *one* part of the following:**   **7 x 1 =7**

| (a) | Write the short notes on the following:
1.Earnest money deposit
2.Security money |
| (b) | Write a short note on labour safety in construction industry. |