

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CE) (Sem.-5th)

**CONSTRUCTION MACHINERY AND
WORKS MANAGEMENT**

Subject Code : CE-301

Paper ID : [A0612]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A**I. Write briefly :**

- i) What do you mean by partial constraint?
- ii) What are Gantt charts?
- iii) Differentiate between forward pass and backward pass.
- iv) Define mean and variance.
- v) Define slack time.
- vi) List different parts of a shovel.
- vii) Explain why is it not advisable to take too fine a range in trying to draw a frequency curve.
- viii) Draw a neat sketch showing basic parts of Hoe.
- ix) How curing of concrete is done? Discuss.
- x) What are basic parts of a concrete pump?

SECTION-B

1. What are three kinds of time estimates? Explain.
2. Why do you understand that only the critical path determines the probability of finishing the project within the stipulated time? Discuss critically.
3. What do you mean by updating? When it is done and how?

5. What is effect of grade on cost of haul?

6. How placing of concrete in cold weather?

SECTION-C

7. How batching of aggregates is done for concrete?
8. How will you select most suitable equipment for a project keeping economy of the project in mind?
9. Given below is the job numbers and along with the normal time and cost. a) Draw the network of the project.

Job no.	Job sequence	Normal Time (days)
1.	0,1	3
2.	0,2	6
3.	0,3	5
4.	1,4	5
5.	2,5	4
6.	2,6	6
7.	2,7	3
8.	3,7,8	Dummy
9.	3,7,9	4
10.	4,5,10	8
11.	4,5,11	4
12.	6,8,11,12	6
13.	6,8,11,13	5
14.	10,12,14	3
15.	9,13,15	7

I. Draw the network of the project.

II. What is the normal cost of project? If resources are allocated indiscriminately, what will be the cost? How much duration will be saved if all the activities are done in minimum time?