

Code: CE8T1

**IV B.Tech-II Semester–Regular/Supplementary Examinations–May 2022**

**CONSTRUCTION TECHNOLOGY AND PROJECT MANAGEMENT  
(CIVIL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks

11 x 2 = 22 M

1.

- a) Write any two advantages of mile stone charts over bar charts.
- b) What are the uses of scheduling?
- c) Define the terms: i) critical activity and ii) dummy activity
- d) Define the terms: i) resource leveling ii) indirect cost
- e) Name any two excavation equipments.
- f) Mention various types of Hauling and compaction equipment.
- g) Define critical path.
- h) Give any two purposes of inventory control of material.
- i) What are the potential hazards for workers in construction?
- j) Name the elements of quality.
- k) What is safety budgeting?

## PART – B

Answer any **THREE** questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) What are the functions of construction management and give its applications? 10 M

b) What are the factors affecting Job Layout? 6 M

3. a) Draw a PERT network for the following and find out the expected time of completion of each activity as well as the earliest expected time and latest allowable time of each event. 10 M

Activity	Three-time estimates(days)
0-1	2-3-10
0-2	4-5-6
1-2	0-0-0
1-3	6-7-8
1-4	1-5-9
2-5	3-5-19
3-4	0-0-0

b) Explain in detail about the difference between CPM and PERT networks. 6 M

4. a) What are the objectives of material management? Discuss in detail about function of material management department in controlling of final costs. 8 M
- b) Describe the optimization of cost through networks and explain steps involved in it. 8 M
5. a) Describe the various types of construction equipment with neat sketches. 8 M
- b) Discuss the factors affecting cost owning and operating the equipment. 8 M
6. a) Write a short note on quality assurance techniques. 12 M
- b) What are the preventive measures of fire in construction industries? 4 M