

B. Tech (Civil Engg) (Semester – 5th)
CONSTRUCTION ENGINEERING& MANAGEMENT
Subject Code: BCIED1-561
Paper ID: [19110723]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a. List the phases of a construction project.
- b. What is pre-tendering planning?
- c. Discuss the importance of construction planning.
- d. Differentiate between bar chart and milestone chart.
- e. Explain critical path in network analysis and its importance.
- f. Define forward pass and backward pass in network analysis.
- g. Discuss the necessity of critical path in a construction project.
- h. Discuss the basics of formwork and staging in concrete construction.
- i. Discuss the disadvantages of conventional method of construction over mechanized.
- j. Discuss the features of a contract document related to concrete construction.

Section – B

(5 marks each)

- Q2. List various types of construction projects and discuss their features.
- Q3. What is a Bar chart? How does Bar chart help in planning a construction project?
- Q4. Discuss the modular construction methods for repetitive works.
- Q5. Explain the features desired for equipments for transportation of materials.
- Q6. Discuss in details the contract clauses in concrete construction.

Section – C

(10 marks each)

- Q7. a) Discuss in details the steps involved in construction planning.
b) Briefly discuss the role of client and contractor in a construction project. **2x5 = 10**
- Q8. A construction project consists of 12 activities. The predecessor relationships are identified by their node numbers as indicated below:-

Activity	Identification	Activity	Identification
A	(1,2)	G	(4,6)
B	(2,4)	H	(5,6)
C	(2,3)	I	(5,7)
D	(2,7)	J	(7,8)
E	(3,4)	K	(6,8)
F	(3,5)	L	(8,9)

Draw the network diagram.

Q9. Explain the following:-

- a) Briefly explain the mechanized methods of construction and their advantages over the conventional methods of construction.
- b) Discuss the Dispute resolution methods in contract management.

2x5 = 10