

**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY UNIVERSITY, ODISHA, GUNUPUR  
(GIET UNIVERSITY)**



M.Tech. (First Semester) Regular Examinations, February – 2025  
**24MCTPC11001 – Construction Planning and Control  
(Construction Technology Management)**

Time: 3 hrs

Maximum: 60 Marks

**Answer ALL questions**  
**(The figures in the right hand margin indicate marks)**

**PART – A****(2 x 5 = 10 Marks)**Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. Write the four approaches to project management.	CO1	K1
b. Define PERT and CPM.	CO2	K2
c. Define Work Breakdown Structure (WBS).	CO3	K1
d. Differentiate between free float and total float.	CO4	K1
e. Define a critical path in CPM.	CO5	K1

**PART – B****(10 x 5 = 50 Marks)**Answer **ALL** the questions

	Marks	CO #	Blooms Level
2. a. Explain the key phases of project management and their importance.	5	CO1	K2
b. Compare and contrast PERT and CPM with their advantages and limitations.	5	CO1	K3
(OR)			
c. Explain the steps involved in milestone scheduling and its significance in project planning.	5	CO1	K2
d. Explain resource leveling and its impact on project scheduling.	5	CO1	K3
3.a. Explain the concept of network techniques in project planning and its objectives.	5	CO2	K3
b. Discuss the importance of cash flow analysis in project cost management.	5	CO2	K4
(OR)			
c. Define cost management in construction projects and discuss its major components.	5	CO2	K2
d. Explain the significance of management principles in construction project execution.	5	CO2	K3
4.a. Discuss the role of leadership in construction project management and its key characteristics.	5	CO3	K3
b. Compare leadership and management in terms of their roles in construction projects.	5	CO3	K2
(OR)			
c. Write the key motivational theories in management, and how do they apply to project teams.	5	CO3	K2
d. Discuss the importance of project team organization and the roles within a project team.	5	CO3	K2
5.a. Explain the key objectives and scope of material management in construction projects.	5	CO4	K3
b. Describe different costing techniques used in construction project management.	5	CO4	K3

(OR)

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|------|---|---|-----|----|
| c.   | Explain the importance of health and safety documentation in construction project management. | 5 | CO4 | K2 |
| d.   | Describe ABC analysis and its application in project cost control.                            | 5 | CO4 | K2 |
| 6.a. | Write the different functions of middle-level management in a construction company.           | 5 | CO5 | K3 |
| b.   | Describe the key challenges in construction project planning and how they can be mitigated.   | 5 | CO5 | K4 |

(OR)

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|----|---|---|-----|----|
| c. | Write the various guidelines to be followed for Work Breakdown Structure. | 5 | CO5 | K3 |
| d. | Explain the influence of organization structure project management.       | 5 | CO5 | K3 |

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