

PRAGATI ENGINEERING COLLEGE: SURAMPALEM
(AUTONOMOUS)
IV B.Tech II Semester Supplementary Examinations, May - 2024

CONSTRUCTION TECHNOLOGY AND MANAGEMENT
(CIVIL ENGINEERING)

Time: 3 hours

Max. Marks: 70M

Answer ONE Question from each Unit
All Questions Carry Equal Marks

Q. No.	Questions		BTL	CO	Marks
UNIT – I					
1.	a)	Discuss the qualities required in a project manager and their significance in construction project management.	K2	CO1	7M
	b)	Explain the importance of project planning in construction project management.	K2	CO1	7M
OR					
2.	a)	Describe the role of coordination in construction project management. How does effective coordination contribute to the smooth execution of a project?	K2	CO1	7M
	b)	Explain the use of bar charts, milestone charts, and the critical path method (CPM) in scheduling and monitoring construction projects.	K2	CO1	7M
UNIT – II					
3.	a)	Explain the process of cost analysis in Project Evaluation and Review Technique (PERT).	K2	CO2	7M
	b)	Discuss the importance of updating in PERT. Why is it necessary to update project schedules and budgets throughout the project lifecycle?	K4	CO2	7M
OR					
4.	a)	Describe the concept of crashing for optimum cost in PERT.	K2	CO2	7M
	b)	Discuss the considerations and challenges involved in resource allocation during project crashing.	K2	CO2	7M
UNIT – III					
5.	a)	What factors should be considered to ensure the most cost-effective choice of equipment for a construction project?	K2	CO3	7M
	b)	Explain the role of rear dump trucks in earthwork operations.	K2	CO3	7M
OR					
6.	a)	What are the main types of compaction rollers, and how are they used in soil compaction?	K2	CO3	7M
	b)	Explain the functions of each type of equipment and their applications in construction projects.	K2	CO3	7M
UNIT – IV					
7.	a)	Discuss the factors to consider when selecting crushing equipment for concrete production.	K2	CO4	7M

	b)	What are the main objectives of aggregate screening, and how does it contribute to producing quality concrete?	K2	CO4	7M
OR					
8.	a)	Discuss the different types of concrete mixers used in construction.	K2	CO4	7M
	b)	Describe the methods used for consolidating concrete to remove air voids and ensure proper compaction.	K2	CO4	7M
UNIT – V					
9.	a)	Discuss the methods and techniques involved in earthwork operations. What are the key considerations in earthwork construction?	K2	CO5	7M
	b)	Describe the process of placing concrete in construction projects.	K2	CO5	7M
OR					
10.	a)	Explain the process of piling in construction. What are the different piling methods used, and how do they differ in their application and effectiveness?	K2	CO5	7M
	b)	Discuss the methods used for fabrication and erection in construction projects.	K2	CO5	7M