

S. No.	Course Code	Course Name	Course Type	C d	L	T	P	Marks		
								Sessional	Final Exam	Total
2	CE-701(B)	Project Planning Management and System	PEC	3	2	1	0	50	100	150

Course Outcomes:

At the end of the course the students will be able to:	
CO1	Describe a project and understand its characteristics, objectives, and scope.
CO2	Identify different types of network analysis and understand their applications in project management and other related fields.
CO3	Apply time estimates in PERT, including optimistic time, pessimistic time, and most likely time, to calculate expected time and determine project durations.
CO4	Analyze event times in project management and their relationship to project scheduling and Statistical Analysis
CO5	Perform CPM analysis to identify critical activities, determine project duration, and establish project schedules based on activity dependencies and durations.

Detailed Syllabus**Section A**

Unit 1: Project: Definition, Project Management, Elements of Project Management, Methods of Project Management, Work Breakdown Structure. **(8 Hrs.)**

Unit 2: Network Analysis: Types, Fundamentals of Network, Activities and its types, Events and its types, Dummy Activity, Logical Relationship, Rules to draw a Network. **(8 Hrs.)**

Unit 3: PERT: Discussion, Deterministic Approach and Probabilistic Approach, Time Estimates, Frequency Distribution Curve- type sand Properties, Probability Distribution Curve. **(9 Hrs.)**

Section B

Unit 4: Central Limit Theorem: Statement-1, Event Times, Slack, Critical Path, Statement-2, Probability of completion of a project, Normal Distribution Curve. **(9 Hrs.)**

Unit 5: CPM: Differentiate PERT & CPM, CPM Analysis, Float, Types of Float, Relationship b/w Total Float and Free Float, Analysis in CPM, Critical Path, Time Cost Optimization- Crashing. **(9 Hrs.)**

Textbooks

S. No.	Name of the Books	Author	Publisher	Edition (Pub. Yr.)
1	Construction Planning, Equipment's, and methods	Purifoy, R.L.	McGraw Hill.	13 th (2015)
2	Management in construction industry	P.P. Dharwadkar	Oxford and IBH Publishing company New Delhi	15 th (2022)

Reference Books

S. No.	Name of the Books	Author	Publisher	Edition (Pub. Yr.)
1	Project planning and control with PERT and CPM' Construction equipment's and its management	B.C. Punmia and K.K. Khandelwal S.C. Sharma	Tata Mc Graw Hill	8 th (2013)
2	PERT and CPM	L.S. Srinath	East West Press	1 st (2001)