


UGMIT, RAYAGADA

DEPARTMENT CIVIL ENGINEERING

Week	Class Day	Theory / Practical Topics
Discipline: CIVIL ENGG	Semester: 4 TH	Name of the Teaching Faculty: CHINMAYA MAHARANA ,GF
Subject: CONSTRUCTION MANAGEMENT	No. of days/pe rweek class allotted: 03	Semester From date: 22.12.2025 To Date: 18.04.2026 No. of Weeks: 15
1 ST	1 ST	Construction industry and management.
	2 ND	Organization- Objectives.
	3 RD	Principles of organization.
2 ND	1 ST	Types of organization: Government/Public construction industry.
	2 ND	Private construction industry.
	3 RD	Role of various personnel in construction organization.
3 RD	1 ST	Agencies associated with construction work- owner, promoter, builder, designer, architects.
	2 ND	Role of consultant for various activities: Preparation of Detailed Project Report (DPR).
	3 RD	monitoring of progress and quality, settlement of disputes.
4 TH	1 ST	Revision
	2 ND	QUIZ
	3 RD	Site Layout : Principles governing site layout.
5 TH	1 ST	Factors affecting site layout
	2 ND	Preparation of site layout.
	3 RD	Land acquisition procedures and providing compensation.
6 TH	1 ST	Revision.
	2 ND	QUIZ.
	3 RD	Identifying broad activities in construction work & allotting time to it.
7 TH	1 ST	Methods of Scheduling.
	2 ND	Development of bar charts.
	3 RD	Merits & limitations of bar chart.
8 TH	1 ST	Elements of Network: Event, activity, dummy activities.

	2ND	Precautions in drawing Network, Numbering the events.
	3RD	CPM networks, activity time estimate, Event Times by forward & backward pass calculation, start and finish time of activity, project duration.
9TH	1ST	Floats: Types of Floats-Free, independent and total floats, critical activities and critical path.
	2ND	Purpose of crashing a network, Normal Time and Cost, Crash Time and Cost.
	3RD	Cost slope, Optimization of cost and duration.
10TH	1ST	Material Management- Ordering cost, inventory carrying cost.
	2ND	Economic Order Quantity
	3RD	Store management, various records related to store management, inventory control by ABC technique.
11TH	1ST	Introduction to material procurement through portals.
	2ND	Revision
	3RD	QUIZ
12TH	1ST	Construction Contracts and Specifications.
	2ND	Types of Construction contracts.
	3RD	Contract documents, specifications, general special conditions.
13TH	1ST	Contract Management, procedures involved in arbitration and settlement.
	2ND	Revision
	3RD	QUIZ
14TH	1ST	Safety in Construction
	2ND	Safety in Construction Industry :Causes of Accidents
	3RD	Remedial and Preventive Measures
15TH	1ST	Labour Laws and Acts pertaining to Civil construction activities.
	2ND	Revision
	3RD	QUIZ

Chinmaya Maharana
 Sign. of Faculty concerned D-22/12/25


 Sign. of HOD