

ACADEMIC SESSION : SUMMER 2024

Discipline: civil Engg.	Semester : 6 th	Name of the Teaching Faculty : SUMIT SAHU
Subject : CONSTRUCTION MANAGEMENT	No. of days / week class allotted	Semester From date: 02/01/2024 TO 23/04/2024 Nos. of Weeks : 14
Week	Class Day	Theory/ Practical Topics
1	1 st	Aims and objectives of construction management Functions of construction management
	2 nd	The construction team component owner, engineer, architect, contractor- their functions and interrelationship and jurisdiction
	3 rd	Resources for construction management- men, machines, materials, Money
	4 th	Importance of Construction Planning, Developing work breakdown structure for construction work
2	1 st	Construction Planning stages- Pre-tender stage, Post-tender stage
	2 nd	Construction scheduling by Bar charts- preparation of Bar Charts for simple construction works, Limitation of Bar charts
	3 rd	Preparation of schedules for labour materials, machinery, finance for small works
	4 th	Construction scheduling by network techniques- definition of terms, PERT and CPM techniques, advantages and disadvantages of two techniques, network analysis
3	1 st	estimation of time and critical path, application of PERT and CPM techniques in sample construction works
	2 nd	Classification of Stores- storage of stock
	3 rd	Issue of materials- indent, invoice, bin card
	4 th	Job Layout- Objectives, Review plans, specifications, Layout of equipments
4	1 st	Location of equipment, organizing labour at site
	2 nd	Job layout for different construction sites
	3 rd	Principle of storing material at site
	4 th	Introduction- Characteristics, Structure, importance
5	1 st	Organization types- line and staff, functions and their characteristics
	2 nd	Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task
	3 rd	Leadership- necessity, styles of leadership, role of leader
	4 th	Human relations- relations with subordinates, Supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare
6	1 st	Conflicts in organization- genesis of conflicts, types- intrapersonal, interpersonal, intergroup, resolving conflicts
	2 nd	Class Test

7	3 rd	Preparing Labourschedule, Essential steps for optimum labour output
	4 th	Labour characteristics, Wages & their payment, Labour incentives
	1 st	Motivation- Classification of motives, different approaches to Motivation
	2 nd	Preparing the equipment schedule
	3 rd	Identification of different alternative equipment
8	4 th	Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
	1 st	Inspection and testing of equipment
	2 nd	Equipment maintenance
	3 rd	Concept of quality in construction
9	4 th	Quality Standards- during construction
	1 st	Quality Standards- after construction
	2 nd	Quality Standards- destructive methods
	3 rd	Quality Standards- non destructive methods
	4 th	Programme and progress of work
10	1 st	Methods of recording progress of work
	2 nd	Analysis of progress
	3 rd	Productivity analysis & work study
	4 th	Time study of work measurements
11	1 st	Importance of safety, causes and effects of accidents in construction works
	2 nd	Safety measures in work sites for excavation, scaffolding
	3 rd	Safety measures in work sites for formwork, fabrication
	4 th	Safety measures in work sites for erection, demolition
12	1 st	Development of safety consciousness
	2 nd	Safety legislation- Workman's compensation act
	3 rd	Safety legislation- contract labour act
	4 th	Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India. Definition of disaster related terms
13	1 st	Earthquake hazard and vulnerability, Magnitude and intensity scales of earthquake, seismic zones, earthquake hazard maps, types of structures and damage classification, effects in housing and resistant measures.
	2 nd	Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measure
	3 rd	Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction
	4 th	Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidences maps, Measures against Tsunami hazards.
14	1 st	Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents.
	2 nd	Class Test
	3 rd	Discussion of Assignment Questions
	4 th	Previous semester Question Discussion