



ACADEMIC LESSON PLAN FOR SUMMER 6TH SEMESTER 2024 .

Dept. Of Civil Engg. , Govt. Polytechnic ,Balasore.

Name of the Faculty : ANKITA SWAIN

CONSTRUCTION MANAGEMENT

Course Code : Th-2
Theory : 5 P/W
Total Periods : 60 P/ Sem
Examination : 3 Hours
Semester : 4TH

Class Test : 20 Marks
End Semester Exam : 80marks
TOTAL MARKS : 100 Marks
START- :

WEEK	PERIOD	TOPIC
1st	1 st	Introduction To Construction Management
	2 nd	Aims and objectives of construction management.
	3 rd	Functions of construction management.
	4 th	The construction team components owner,engineer,architect,contractor-their functions and interrelationship and jurisdiction.
2 nd	1 st	Resources for construction management-men,machines,materials,money
	2 nd	Constructional Planning, Importance of Construction Planning
	3 rd	Developing work breakdown structure for construction work
	4 th	Construction Planning stages-Pre-tender stage, Post-tender stage
3 rd	1 st	Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.
	2 nd	Preparation of schedules for labour materials,machinery, finance for small works
	3 rd	Limitation of Bar charts
	4 th	Limitation of Bar charts 2.7 Construction scheduling by network techniques-defination of terms ,PERT and CPM techniques, advantages and disadvantages of two techniques
4 th	1 st	network analysis, estimation of time and critical path, application of PERT and CPM techniques in sample construction works.
	2 nd	Materials and Stores Management
	3 rd	Classification of Stores-storage of stock
	4 th	Issue of materials-indent , invoice, bin card
	1 st	Construction Site Management, Job Lay out-Objectives, Review plans, specifications, Lay out of equipments

5 th	2 nd	Location of equipment, organizing labour at site.
	3 rd	Job lay out for different construction sites.
	4 th	Principle of storing material at site.
6 th	1 st	Construction Organization, Introduction – Characteristics, Structure, importance
	2 nd	Organization types-line and staff, functions and their characteristics
	3 rd	Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task.
	4 th	Leadership-necessity, styles of leadership, role of leader
7 th	1 st	Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare.
	2 nd	Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts.
	3 rd	Construction Labour and Labour Management, Preparing Labour schedule
	4 th	Essential steps for optimum labour output
8 th	1 st	Labour characteristics
	2 nd	Wages & their payment, Labour incentives
	3 rd	Motivation- Classification of motives, different approaches to motivation.
	4 th	Equipment Management, Preparing the equipment schedule
9 th	1 st	Identification of different alternative equipment
	2 nd	Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
	3 rd	Inspection and testing of equipment
	4 th	Equipment maintenance
10 th	1 st	Quality Control, Concept of quality in construction
	2 nd	Quality Standards- during construction, after construction, destructive & non destructive methods.
	3 rd	Monitoring Progress, Programme and progress of work
	4 th	Monitoring Progress, Work study
11 th	1 st	Analysis and control of physical and financial progress corrective measures
	2 nd	Safety Management In Construction,
	3 rd	Safety Management In Construction, importance of safety
	4 th	causes and effects of accidents in construction works

12 th	1 st	Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition.
	2 nd	Development of safety consciousness
	3 rd	Safety legislation- Workman's compensation act, contract labour act.
	4 th	Role of Vulnerability Atlas of India in construction projects
13 th	1 st	Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India.
	2 nd	Role of Vulnerability Atlas of India in construction projects, Definition of disaster related terms.
	3 rd	Earthquake hazard and vulnerability, Magnitude and intensity scales of earthquake, seismic zones, earthquake hazard maps
	4 th	types of structures and damage classification, effects in housing and resistant measures.
14 th	1 st	Wind / Cyclone hazard and vulnerability, wind speed and pressures
	2 nd	wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures.
	3 rd	Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country,
	4 th	General protection of habitants and flood resistant construction.
15 th	1 st	Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps,
	2 nd	Measures against Tsunami hazards.
	3 rd	Housing vulnerability risk tables and usage of vulnerability atlas of India,
	4 th	Inclusion of vulnerability atlas in Tender documents.


