

LESSON PLAN :CONSTRUCTION MANAGEMENT

Discipline: Civil Engineering	Semester: 6th	Name of the Teaching Faculty: ER. SWETA RANI PATRA
Subject: CONSTRUCTION MANAGEMENT	No. of days/ per week class allotted: 5	No. of Weeks: 15
Week	Class Day	Theory/ Practical Topics
		1.Introduction To Construction Management
1st	1st	Aims and objectives of construction management.Functions of construction management.
	2nd	The construction team components-owner,engineer,architect,contractor-their functions and interrelationship and jurisdiction.
	3rd	Resources for construction management-men,machines,materials,money
		2.Constructional Planning
	4th	Importance of Construction Planning.Developing work breakdown structure for construction work
	5th	Construction Planning stages-Pre-tender stage, Post-tender stage.Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works
2nd	1st	Preparation of schedules for labour materials,machinery, finance for small works.Limitation of Bar charts
	2nd	techniques, advantages and disadvantages of two techniques, network analysis, estimation of time and critical path, application of PERT and CPM techniques in sample construction works.
		3.Materials and Stores Management
	3rd	Classification of Stores-storage of stock.
	4th	Issue of materials-indent , invoice, bin card
	5th	Stores Accounting Procedure
3rd	1st	Inspection of stores, T&P account's register, procedure of write off
	2nd	Inspection of stores, T&P account's register, procedure of write off
	3rd	Inspection of stores, T&P account's register, procedure of write off
		4.Construction Site Management
	4th	Job Lay out-Objectives, Review plans, specifications, Lay out of equipments
	5th	Job Lay out-Objectives, Review plans, specifications, Lay out of equipments
4th	1st	Job Lay out-Objectives, Review plans, specifications, Lay out of equipments
	2nd	Factors influencing selection, design and layout of temporary facilities and services at construction site.
	3rd	Factors influencing selection, design and layout of temporary facilities and services at construction site.
	4th	Factors influencing selection, design and layout of temporary facilities and services at construction site.
	5th	Principles of storing material at site.
5th	1st	Principles of storing material at site.
	2nd	Principles of storing material at site.
	3rd	Location of equipment, organizing labour at site.
	4th	Location of equipment, organizing labour at site.
	5th	Location of equipment, organizing labour at site.
6th	1st	Job lay out for different construction sites.
	2nd	Job lay out for different construction sites.
	3rd	Job lay out for different construction sites.
		5.Construction Organisation

	4th	Introduction – Characteristics, Structure, importance
	5th	Organization types-line and staff, functions and their characteristics
7th	1st	Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task.
	2nd	Leadership-necessity, styles of leadership, role of leader, Principles of effective supervision
	3rd	Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare
	4th	Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts.
		6.Construction Labour and Labour Management:
	5th	Preparing Labour schedule
8th	1st	Essential steps for optimum labour output
	2nd	Labour characteristics
	3rd	Wages & their payment
	4th	Labour incentives
	5th	Motivation- Classification of motives, different approaches to motivation
9th	1st	Morale
	2nd	Relevant labour laws and case studies related to labour disputes
		7.Equipment Management
	3rd	Preparing the equipment schedule
	4th	Identification of different alternative equipment
	5th	Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
10th	1st	Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
	2nd	Inspection and testing of equipment
	3rd	Inspection and testing of equipment
	4th	Equipment maintenance and minor repairs
	5th	Equipment maintenance and minor repairs
		8.Quality Control
11th	1st	Concept of quality in construction
	2nd	Quality Standards- during construction
	3rd	Quality Standards- during construction
	4th	Quality Standards- during construction
	5th	Quality Standards- during construction
12th	1st	Quality Standards- after construction
	2nd	Quality Standards- after construction
	3rd	Quality Standards- after construction
	4th	Quality Standards- destructive method
	5th	Quality Standards- destructive method
13th	1st	Quality Standards- Non destructive method
	2nd	Quality Standards- Non destructive method

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		9. Monitoring Progress
	3rd	Programme and progress of work
	4th	Programme and progress of work
14th	5th	Work study
	1st	Work study
	2nd	Work study
	3rd	Analysis and control of physical and financial progress corrective measures
	4th	Analysis and control of physical and financial progress corrective measures
		10. Safety Management In Construction
15th	5th	Importance of safety
	1st	causes and effects of accidents in construction works
	2nd	Safety measures in worksites for excavation, scaffolding
	3rd	Safety measures in worksites for formwork, fabrication and erection, demolition.
	4th	Development of safety consciousness
	5th	Safety legislation- Workman's compensation act, contract labour act.

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