Badriprasad Institute of Technology, Sambalpur

<u>Lesson plan for Theory -2, Construction Management</u> Semester & Branch : 6th Sem Civil Engineering

Name of the faculty : Miss. Santosini Padhan

Total Periods-60 No of periods /week-4

WEEK	CLASS DAY	THEORY TOPICS
	4-+	Introduction To Construction Management
1st	1st	Aims and objectives of construction management.
	2nd	Functions of construction management.
	3rd	The construction team components-owner, engineer, architect,
	4th	contractor-their functions and interrelationship and jurisdiction.
2nd	1st	Resources for construction management- men,machines,materials,money
	2nd	Constructional Planning
		Importance of Construction Planning
	3rd	Developing work breakdown structure for construction work
	4th	Construction Planning stages-Pre-tender stage, Post-tender stage.
	1st	Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.
3rd	2nd	Preparation of schedules for labour materials,machinery, finance for small works
Jiu	3rd	Limitation of Bar charts
	4th	Construction scheduling by network techniques-defination of terms ,PERT and CPM techniques, advantages and disadvantages of two techniques, network analysis,
	1st	estimation of time and critical path, application of PERT and CPM techniques in sample construction works.
	2nd	Materials and Stores Management
4.1		Classification of Stores-storage of stock.
4th	3rd	Issue of materials-indent , invoice, bin card
	4th	Construction Site Management
		Job Lay out-Objectives, Review plans, specifications, Lay out of equipments.
	1st	Location of equipment, organizing labour at site.
	2nd	Job lay out for different construction sites.
5th	3rd	Principle of storing material at site.
	4th	Construction Organization:
		Introduction – Characteristics, Structure, importance.
6th	1st	Organization types-line and staff, functions and their characteristics
	2nd	Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task.
	3rd	Leadership-necessity, styles of leadership, role of leader
	4th	Human relations-relations with subordinates, peers, Supervisors,

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7th	1st	characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare.
	2nd	Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts.
	3rd	Construction Labour and Labour Management:
		Preparing Labour schedule
	4th	Essential steps for optimum labour output
	1st	Labour characteristics
	2nd	Wages & their payment
8th	3rd	Labour incentives
	4th	Motivation- Classification of motives, different approaches to motivation.
	1st	Equipment Management
		Preparing the equipment schedule
046	2nd	Identification of different alternative equipment
9th	3rd	Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
	4th	Inspection and testing of equipment
	1st	Equipment maintenance
	2nd	Quality Control
		Concept of quality in construction
10th	3rd	Quality Standards- during construction, after construction, destructive & non destructive methods.
	4th	Monitoring Progress
		Programme and progress of work
	1st	Work study
	2nd	Analysis and control of physical and financial progress corrective measures.
11th	3rd	Safety Management In Construction
		Importance of safety
	4th	causes and effects of accidents in construction works
	1st	Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition.
	2nd	Development of safety consciousness
12th	3rd	Safety legislation- Workman's compensation act, contract labour act.
-	4th	Role of Vulnerability Atlas of India in construction projects
		Introduction to Vulnerability Atlas of India, Concepts of natural hazards and

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13th	1st	disasters and vulnerability profile of India. Definition of disaster related terms.
	2nd	Earthquake hazard and vulnerability, Magnitude and intensity scales of earthquake, seismic zones,
	3rd	earthquake hazard maps, types of and damage classification, effects in housing and resistant measures.
	4th	Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind
14th	1st	hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures
	2nd	Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country
	3rd	, General protection of habitants and flood resistant construction.
	4th	Landslides, Tsunamis and Thunderstorm hazards and vulnerability,
15th	1st	Landslide & Thunderstorm incidence maps, Measures against Tsunami
	2nd	Housing vulnerability risk tables and usage of vulnerability atlas of India
	3rd	Inclusion of vulnerability atlas in Tender documents
	4th	Revision Class

Sign of Faculty Sign of HOD