

## LESSON PLAN

BRANCH- CIVIL ENGG

SEMESTER-6<sup>TH</sup>

SUBJECT- CONSTRUCTION MANAGEMENT

YEAR- 2021-22

FACULTY NAME- BIBHU RANJAN SAMAL

FROM:- 10.03.2022 TO:-10.06.2022

SL NO	MODULE/UNIT	CLAUSE NO	TOPIC TO BE COVERED	NO OF CLASSES	REMARKS(IF ANY)
1	1	1.1	<b>Introduction To Construction Management</b> Aims and objectives of construction management	01	
		1.2	Functions of construction management	01	
		1.3	The construction team components- owner, engineer, architect, contractor-their functions and interrelationship and jurisdiction.	01	
		1.4	Resources for construction management-men, machines, materials, money	01	
2	2	2.1	<b>Constructional Planning</b> Importance of Construction Planning	01	
		2.2	Developing work breakdown structure for construction work		
		2.3	Construction Planning stages-Pre-tender stage, Post-tender stage.	01	
		2.4	Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works	01	
		2.5	Preparation of schedules for labour materials, machinery, finance for small works		
		2.6	Limitation of Bar charts		
		2.7	Construction scheduling by network techniques-definition of terms ,PERT and CPM techniques, advantages and	04	

			disadvantages of two techniques, network analysis, estimation of time and critical path, application of PERT and CPM techniques in sample construction works.		
3	3	3.1	<b>Materials and Stores Management</b> Classification of Stores-storage of stock.	01	
		3.2	Issue of materials-indent , invoice, bin card	01	
4	4	4.1	<b>Construction Site Management</b> Job Lay out-Objectives, Review plans, specifications, Lay out of equipments.	02	
		4.2	Location of equipment, organizing labour at site.	01	
		4.3	Job lay out for different construction sites.	01	
		4.4	Principle of storing material at site.	01	
5	5	5.1	<b>Construction Organization:</b> Introduction – Characteristics, Structure, importance	01	
		5.2	Organization types-line and staff, functions and their characteristics	01	
		5.3	Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task.	01	
		5.4	Leadership-necessity, styles of leadership, role of leader	01	
		5.5	Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare.	01	
		5.6	Conflicts in organization-genesis of conflicts, types-intrapersonal,	01	

			interpersonal, intergroup, resolving conflicts.		
6	6	6.1	<b>Construction Labour and Labour Management:</b> Preparing Labour schedule	01	
		6.2	Essential steps for optimum labour output	01	
		6.3	Labour characteristics	01	
		6.4	Wages & their payment	01	
		6.5	Labour incentives	01	
		6.6	Motivation- Classification of motives, different approaches to motivation	01	
7	7	7.1	<b>Equipment Management</b> Preparing the equipment schedule	01	
		7.2	Identification of different alternative equipment	01	
		7.3	Importance of Owning & operating costs in making decisions for hiring & purchase of equipment	01	
		7.4	Inspection and testing of equipment	01	
		7.5	Equipment maintenance	01	
8	8	8.1	<b>Quality Control</b> Concept of quality in construction	01	
		8.2	Quality Standards- during construction, after construction, destructive & non destructive methods	02	
9	9	9.1	<b>Monitoring Progress</b> Programme and progress of work	02	
		9.2	Work study	02	
		9.3	Analysis and control of physical and financial progress corrective measures. 10	02	
10	10	10.1	<b>Safety Management In Construction</b> Importance of safety	01	

		10.2	causes and effects of accidents in construction works	01	
		10.3	Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition	01	
		10.4	Development of safety consciousness	01	
		10.5	Safety legislation- Workman's compensation act, contract labour act.	01	
11	11	11.1	<b>Role of Vulnerability Atlas of India in construction projects</b> Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India. Definition of disaster related terms	01	
		11.2	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	01	
		11.3	Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures	01	
		11.4	Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction	01	
		11.5	Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards.	01	
		11.6	Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents.	01	