



**DEPARTMENT OF CIVIL ENGINEERING**  
**GANAPATI INSTITUTE OF ENGINEERING AND TECHNOLOGY, JAGATPUR, CUTTACK**

**LESSON PLAN OF 6<sup>TH</sup> SEMESTER(2023-24) CIVIL ENGINEERING**

Discipline: CIVIL ENGG.	Semester:-6 <sup>TH</sup>	Name of the Teaching Faculty BIBHU RANJAN SAMAL
Subject:- CONSTRUCTION MANAGEMENT (Th.2)	No of Days/per Week Class Allotted :-04	Semester From:- <u>16/01/2024</u> To:- <u>26/04/2024</u>  No of Weeks:- 15
<b>Week</b>	<b>Class Day</b>	<b>Theory/ Practical Topics</b>
1 <sup>st</sup>	1 <sup>st</sup>	CHAPTER-1: Aims and objectives of construction management.
	2 <sup>nd</sup>	Functions of construction management.
	3 <sup>rd</sup>	The construction team components
	4 <sup>th</sup>	Resources for construction management-men, machines, materials, money
2 <sup>nd</sup>	1 <sup>st</sup>	CHAPTER-2: Constructional Planning: Importance of Construction Planning, Developing work breakdown structure for construction work
	2 <sup>nd</sup>	Construction Planning stages-Pre-tender stage, Post-tender stage.
	3 <sup>rd</sup>	Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.
	4 <sup>th</sup>	Preparation of schedules for labour materials, machinery, finance for small works, Limitation of Bar charts
3 <sup>rd</sup>	1 <sup>st</sup>	PERT and CPM
	2 <sup>nd</sup>	PERT and CPM
	3 <sup>rd</sup>	PERT and CPM
	4 <sup>th</sup>	CHAPTER-3: Materials and Stores Management: Classification of Stores-storage of stock.
4 <sup>th</sup>	1 <sup>st</sup>	Issue of materials-indent , invoice, bin card
	2 <sup>nd</sup>	Issue of materials-indent , invoice, bin card
	3 <sup>rd</sup>	Issue of materials-indent , invoice, bin card
	4 <sup>th</sup>	CHAPTER-4: Construction Site Management: Job Lay out-Objectives, Review plans, specifications
5 <sup>th</sup>	1 <sup>st</sup>	Lay out of equipments
	2 <sup>nd</sup>	Location of equipment, organizing labour at site
	3 <sup>rd</sup>	Job lay out for different construction sites.
	4 <sup>th</sup>	Principle of storing material at site.
6 <sup>th</sup>	1 <sup>st</sup>	CHAPTER-5: Construction Organization: Introduction – Characteristics, Structure, importance.
	2 <sup>nd</sup>	Organization types-line and staff, functions and their characteristics
	3 <sup>rd</sup>	Principles of organization
	4 <sup>th</sup>	Leadership-necessity, styles of leadership, role of leader
7 <sup>th</sup>	1 <sup>st</sup>	Human relations 1 CHAPTER-7: Equipment Management : Preparing the equipment schedule,
	2 <sup>nd</sup>	Conflicts in organization
	3 <sup>rd</sup>	CHAPTER-6: Construction Labour and Labour Management: Preparing Labour schedule, Essential steps for optimum labour output
	4 <sup>th</sup>	Labour characteristics
8 <sup>th</sup>	1 <sup>st</sup>	Wages & their payment
	2 <sup>nd</sup>	Labour incentives
	3 <sup>rd</sup>	Motivation- Classification of motives, different approaches to motivation.
	4 <sup>th</sup>	Motivation- Classification of motives, different approaches to motivation.

9 <sup>th</sup>	1 <sup>st</sup>	CHAPTER-7: Equipment Management : Preparing the equipment schedule, Identification of different alternative equipment
	2 <sup>nd</sup>	Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
	3 <sup>rd</sup>	Importance of Owning & operating costs in making decisions for hiring & purchase of equipment
	4 <sup>th</sup>	Inspection and testing of equipment
10 <sup>th</sup>	1 <sup>st</sup>	Inspection and testing of equipment
	2 <sup>nd</sup>	Equipment maintenance
	3 <sup>rd</sup>	CHAPTER-8: Quality Control: Concept of quality in construction
	4 <sup>th</sup>	Quality Standards
11 <sup>th</sup>	1 <sup>st</sup>	Quality Standards
	2 <sup>nd</sup>	Quality Standards
	3 <sup>rd</sup>	Destructive & non destructive methods
	4 <sup>th</sup>	CHAPTER-9: Monitoring Progress : Programme and progress of work
12 <sup>th</sup>	1 <sup>st</sup>	Work study
	2 <sup>nd</sup>	Analysis and control of physical and financial progress corrective measures
	3 <sup>rd</sup>	Analysis and control of physical and financial progress corrective measures
	4 <sup>th</sup>	Analysis and control of physical and financial progress corrective
13 <sup>th</sup>	1 <sup>st</sup>	Analysis and control of physical and financial progress corrective measures
	2 <sup>nd</sup>	CHAPTER-10: Safety Management In Construction: Importance of safety , causes and effects of accidents in construction works
	3 <sup>rd</sup>	Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition.
	4 <sup>th</sup>	Development of safety consciousness
14 <sup>th</sup>	1 <sup>st</sup>	Safety legislation- Workman's compensation act, contract labour act
	2 <sup>nd</sup>	Safety legislation- Workman's compensation act, contract labour act
	3 <sup>rd</sup>	CHAPTER-11: Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India. Definition of disaster related
	4 <sup>th</sup>	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.
15 <sup>th</sup>	1 <sup>st</sup>	Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures.
	2 <sup>nd</sup>	Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction.
	3 <sup>rd</sup>	Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami
	4 <sup>th</sup>	Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents.

  
 13.01.24  
 Signature of Faculty

  
 13.01.24  
 Signature of H.O.D  
 Head of Department  
 Civil Engineering  
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