

# IDEAL SCHOOL OF ENGINEERING,RETANG-752054

<b>DISCIPLINE:</b> CIVIL ENGINEERING	<b>SEMESTER: 6<sup>TH</sup></b> SEM	<b>NAME OF THE TEACHING FACULTY:</b> ER. MONALISHA MOHAPATRA & ER. MEERA BEHERA
<b>SUBJECT:</b> CONSTRUCTION MANAGEMENT (TH-2)	No of Days/Per week class allotted: <b>4 Class</b> <b>P/W(60)</b>	Semester From Date: 15/02/2023 To Date: 23/05/2023 No. Of Weeks: <b>15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY</b>
1 <sup>st</sup>	1 <sup>st</sup>	<b>Introduction To Construction Management</b> 1.1 Aims and objectives of construction management.
	2 <sup>nd</sup>	1.2 Functions of construction management.
	3 <sup>rd</sup>	1.3 The construction team components-owner, engineer, architect, contractor-their functions and interrelationship and jurisdiction.
	4 <sup>th</sup>	1.4 Resources for construction management-men,machines,materials,money
2 <sup>nd</sup>	1 <sup>st</sup>	<b>Constructional Planning</b> 2.1 Importance of Construction Planning .
	2 <sup>nd</sup>	2.2 Developing work breakdown structure for construction work
	3 <sup>rd</sup>	2.3 Construction Planning stages-Pre-tender stage, Post-tender stage.
	4 <sup>th</sup>	2.4 Construction scheduling by Bar charts- preparation of Bar Charts for simple construction works.
3 <sup>rd</sup>	1 <sup>st</sup>	2.5 Preparation of schedules for labour materials,machinery, finance for small works
	2 <sup>nd</sup>	2.6 Limitation of Bar charts
	3 <sup>rd</sup>	2.7 Construction scheduling by network techniques- defination of terms.
	4 <sup>th</sup>	PERT and CPM 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.
4 <sup>th</sup>	1 <sup>st</sup>	<b>Materials and Stores Management</b> 3.1 Classification of Stores-storage of stock.
	2 <sup>nd</sup>	3.2 Issue of materials-indent
	3 <sup>rd</sup>	Invoice & Bin card

	4 <sup>th</sup>	Revision Class About Store Management
5 <sup>th</sup>	1 <sup>st</sup>	<b>Construction Site Management</b> 4.1 Job Lay out-Objectives, Review plans, specifications, Lay out of equipments.
	2 <sup>nd</sup>	4.2 Location of equipment, organizing labour at site.
	3 <sup>rd</sup>	4.3 Job lay out for different construction sites.
	4 <sup>th</sup>	4.4 Principle of storing material at site.
6 <sup>th</sup>	1 <sup>st</sup>	Revision Class About Construction Site Management.
	2 <sup>nd</sup>	<b>Construction Organization:</b> 5.1 Introduction – Characteristics, Structure, importance.
	3 <sup>rd</sup>	5.2 Organization types-line and staff, functions and their characteristics
	4 <sup>th</sup>	5.3 Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task.
7 <sup>th</sup>	1 <sup>st</sup>	5.4 Leadership-necessity, styles of leadership, role of leader
	2 <sup>nd</sup>	5.5 Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare.
	3 <sup>rd</sup>	5.6 Conflicts in organization-genesis of conflicts, types- intrapersonal, interpersonal, intergroup, resolving conflicts.
	4 <sup>th</sup>	Revision About Last Class Organization.
8 <sup>th</sup>	1 <sup>st</sup>	<b>Construction Labour and Labour Management:</b> 6.1 Preparing Labour schedule
	2 <sup>nd</sup>	6.2 Essential steps for optimum labour output
	3 <sup>rd</sup>	6.3 Labour characteristics 6.4 Wages & their payment
	4 <sup>th</sup>	Revision class About Labour And Labour Management.
9 <sup>th</sup>	1 <sup>st</sup>	6.5 Labour incentives, 6.6 Motivation- Classification of motives,
	2 <sup>nd</sup>	Revision Class About Labour incentives.
	3 <sup>rd</sup>	Different approaches to motivation.
	4 <sup>th</sup>	Repeat Class About Motives.
10 <sup>th</sup>	1 <sup>st</sup>	<b>Equipment Management</b> 7.1 Preparing the equipment schedule.
	2 <sup>nd</sup>	7.2 Identification of different alternative equipment.

10 <sup>th</sup>	3 <sup>rd</sup>	7.3 Importance of Owning & operating costs in making decisions for hiring & purchase of equipment.
	4 <sup>th</sup>	7.4 Inspection and testing of equipment.
11 <sup>th</sup>	1 <sup>st</sup>	7.5 Equipment maintenance.
	2 <sup>nd</sup>	Revision About Last Class Equipment management,
	3 <sup>rd</sup>	<b>Quality Control</b> 8.1 Concept of quality in construction
	4 <sup>th</sup>	Revision About Last Class Concept of Quality.
12 <sup>th</sup>	1 <sup>st</sup>	8.2 Quality Standards- during construction, after construction,
	2 <sup>nd</sup>	Destructive & non destructive methods.
	3 <sup>rd</sup>	Revision Of Last Class About methods of destructives.
	4 <sup>th</sup>	<b>Monitoring Progress</b> 9.1 Programme and progress of work
13 <sup>th</sup>	1 <sup>st</sup>	Revision Class About monitoring Progress. 9.2 Work study
	2 <sup>nd</sup>	Revision Class About Work study.
	3 <sup>rd</sup>	9.3 Analysis and control of physical and financial progress corrective measures.
	4 <sup>th</sup>	<b>Safety Management In Construction</b> 10.1 Importance of safety 10.2 causes and effects of accidents in construction works
14 <sup>th</sup>	1 <sup>st</sup>	10.3 Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition
	2 <sup>nd</sup>	10.4 Development of safety consciousness
	3 <sup>rd</sup>	<b>Role of Vulnerability Atlas of India in construction projects</b> 11.1 Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India
		Definition of disaster related terms.
	4 <sup>th</sup>	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
	1 <sup>st</sup>	11.3 Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures

15 <sup>th</sup>	2 <sup>nd</sup>	11.4 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>	11.5 Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards.
	4 <sup>th</sup>	11.6 Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents.