

# LESSON PLAN FOR SUMMER SESSION (2023-24)

PROGRAMME : CIVIL ENGINEERING			NAME OF THE FACULTY: MR. ARABINDA SAHU
COURSE NAME : CONSTRUCTION MANAGEMENT			SESSION : 2023-24
COURSE CODE : TH.2			DATE : 16/01/24 To 26/04/24
SEMESTER : 6TH			
PERIODS/WEEK: 4			
TOTAL PERIODS:60			
WEEK	PERIODS	UNITS	TOPICS
Jan. 3rd Week	1	1	<b>1 Introduction To Construction Management</b>
	2	1	1.1 Aims and objectives of construction management.
	3	1	1.2 Functions of construction management.
	4	1	1.3 The construction team components owner, engineer ,architect, contractor-their functions and interrelationship and jurisdiction.
Jan. 4th Week	5	2	1.4 Resources for construction management-men, machines materials ,money
	6	2	<b>2 Constructional Planning</b>
	7	2	2.1 Importance of Construction Planning
	8	2	2.2 Developing work breakdown structure for construction work
Feb. 1st Week	9	2	2.2 Developing work breakdown structure for construction work
	10	2	2.3 Construction Planning stages-Pre-tender stage, Post-tender stage.
	11	2	2.3 Construction Planning stages-Pre-tender stage, Post-tender stage.
	12	2	2.4 Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.
Feb. 2nd Week	13	2	2.4 Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.
	14	2	2.4 Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.
	15	2	2.5 Preparation of schedules for labour materials ,machinery, finance for small works
	16	2	2.5 Preparation of schedules for labour materials ,machinery, finance for small works
Feb. 3rd Week	17	2	2.5 Preparation of schedules for labour materials ,machinery, finance for small works
	18	2	2.6 Limitation of Bar charts
	19	2	2.7 Construction scheduling by network techniques-defination of terms ,PERT techniques
	20	2	2.7 Construction scheduling by network techniques-defination of terms ,PERT techniques
Feb. 4th Week	21	2	2.7 Construction scheduling by network techniques-defination of terms CPM techniques
	22	2	2.7 Construction scheduling by network techniques-defination of terms CPM techniques
	23		<b>Monthly Test-1</b>
	24	2	Advantages and disadvantages of two techniques, network analysis, estimation of time and critical path
Mar. 1st Week	25	2	Advantages and disadvantages of two techniques, network analysis, estimation of time and critical path
	26	2	Advantages and disadvantages of two techniques, network analysis, estimation of time and critical path
	27	2	Advantages and disadvantages of two techniques, network analysis, estimation of time and critical path
	28	2	Application of PERT and CPM techniques in sample construction works
Mar. 2nd Week	29	2	Application of PERT and CPM techniques in sample construction works
	30	2	Application of PERT and CPM techniques in sample construction works
	31	2	Application of PERT and CPM techniques in sample construction works
	32	3	<b>3 Materials and Stores Management</b> 3.1
Mar. 3rd Week	33	3	Classification of Stores-storage of stock.
	34	4	3.2 Issue of materials-indent , invoice, bin card
	35	4	<b>4 Construction Site Management</b>
	36	4	4.1 Job Lay out-Objectives, Review plans, specifications, Lay out of equipments.
Mar. 4th Week	37	4	4.2 Location of equipment, organizing labour at site.
	38	5	4.3 Job lay out for different construction sites.
	39	5	4.4 Principle of storing material at site.
	40	5	<b>5 Construction Organization:</b>
			5.1 Introduction – Characteristics, Structure, importance.
			5.2 Organization types-line and staff, functions and their characteristics
			5.3 Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task



Mar. 5th Week	41	5	5.4 Leadership-necessity, styles of leadership, role of leader
	42	5	5.5 Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, Mob psychology, handling of grievances, absenteeism, labour welfare
	43	5	5.6 Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts
	44	6	<b>6 Construction Labour and Labour Management:</b> 6.1 Preparing Labour schedule 6.2 Essential steps for optimum labour output
Apr. 1st Week	45		<b>INTERNAL ASSESSMENT</b>
	46	6	6.3 Labour characteristics 6.4 Wages & their payment
	47	6	6.5 Labour incentives 6.6 Motivation- Classification of motives, different approaches to motivation.
	48	7	<b>7 Equipment Management</b> 7.1 Preparing the equipment schedule 7.2 Identification of different alternative equipment
Apr. 2nd Week	49	7	7.3 Importance of Owning & operating costs in making decisions for hiring & purchase of equipment 7.4 Inspection and testing of equipment 7.5 Equipment maintenance
	50	8	<b>8 Quality Control</b> 8.1 Concept of quality in construction 8.2 Quality Standards- during construction, after construction, destructive & non destructive methods
	51	9	<b>9 Monitoring Progress</b> 9.1 Programme and progress of work
	52	9	9.2 Work study 9.3 Analysis and control of physical and financial progress corrective measures
Apr. 3rd Week	53	10	<b>10 Safety Management In Construction</b> 10.1 Importance of safety causes and effects of accidents in construction works 10.3 Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition
	54	10	10.4 Development of safety consciousness Safety legislation- Workman's compensation act, contract labour act
	55	11	<b>11 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 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.
	56	11	11.3 Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures. hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction
Apr. 4th Week	57	11	11.5 Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards. Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents.
	58		Monthly Test-2
	59		Doubt Clearing Class & Previous year question Paper discussion.
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