

**JHARSUGUDA ENGINEERING SCHOOL,  
JHARSUGUDA**

**Department of Civil Engineering**

**6th Sem (3rd Year) Summer 2022**

**Theory No: 2**

**Subject: Construction Management**

**Name Of The  
Faculty:**

**Sri Swapnashish Patel**


<b>Sl No</b>	<b>Week No</b>	<b>No. Of classes</b>	<b>Topics to be covered</b>	<b>Remarks</b>
1	W1	1	Introduction To Construction Management 1.1 Aims and objectives of construction management	
2		1	1.2 Functions of construction management	
3		1	1.3 The construction team componentsowner,engineer,architect ,contractor-their functions and interrelationship and jurisdiction.	
4		1	1.4 Resources for construction management-men,machines,materials,money	
5	W2	1	Constructional Planning 2.1 Importance of Construction Planning	
6		1	2.2 Developing work breakdown structure for construction work	
7		1	2.3 Construction Planning stages-Pre-tender stage, Post-tender stage	
8		1	2.3 Construction Planning stages-Pre-tender stage, Post-tender stage	
9		1	2.4 Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.	
10		1	2.5 Preparation of schedules for labour materials,machinery, finance for small works	
11		1	2.6 Limitation of Bar charts	


12	W3	1	2.7 Construction scheduling by network techniques-definition of terms ,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.
13	W4	1	Materials and Stores Management 3.1 Classification of Stores-storage of stock
14		1	3.2 Issue of materials-indent , invoice, bin card
15		1	Construction Site Management 4.1 Job Lay out-Objectives, Review plans, specifications, Lay out of equipments
16		1	4.2 Location of equipment, organizing labour at site.
17	W5	1	4.3 Job lay out for different construction sites.
18		1	4.4 Principle of storing material at site
19		1	Construction Organization: 5.1 Introduction – Characteristics, Structure, importance.
20		1	5.2 Organization types-line and staff, functions and their characteristics
21	W6	1	5.3 Principles of organization-meaning and significance of terms-control, authority, responsibility, job & task.
22		1	5.4 Leadership-necessity, styles of leadership, role of leader
23		1	5.5 Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare.
24		1	5.6 Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts.

25	W7	1	5.6 Conflicts in organization-gensis of conflicts, types-Intrapersonal, interpersonal, intergroup, resolving conflicts.	
26		1	Construction Labour and Labour Management: 6.1 Preparing Labour schedule	
27		1	6.2 Essential steps for optimum labour output	
28		1	6.3 Labour characteristics	
29	WS	1	6.4 Wages & their payment	
30		1	6.5 Labour incentives	
31		1	6.6 Motivation- Classification of motives, different approaches to motivation	
32		1	Equipment Management 7.1 Preparing the equipment schedule	
33	W9	1	7.2 Identification of different alternative equipment	
34		1	7.3 Importance of Owning & operating costs in making decisions for hiring & purchase of equipment	
35		1	7.4 Inspection and testing of equipment	
36		1	7.5 Equipment maintenance	
37	W10	1	Quality Control 8.1 Concept of quality in construction	
38		1	8.2 Quality Standards- during construction, after construction, destructive & non destructive methods.	
39		1	Monitoring Progress 9.1 Programme and progress of work	
40		1	9.2 Work study	
41	W11	1	9.3 Analysis and control of physical and financial progress corrective measures	
42		1	Safety Management In Construction 10.1 Importance of safety	
43		1	10.2 causes and effects of accidents in construction works	

44		1	10.3 Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition.	
45	W12	1	10.4 Development of safety consciousness	
46		1	10.5 Safety legislation- Workman's compensation act, contract labour act	
47		1	Role of Vulnerability Atlas of India in construction projects 11.1 Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India. Definition of disaster related terms.	
48		1	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.	
49	W13	1	11.3 Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures.	
50		1	11.4 Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction.	
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52		1	11.5 Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards.	

53	W14	1	11.5 Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards.	
54		1	11.6 Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents.	
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56		1	PYQ	
57	W15	1	PYQ	
58		1	PYQ	
59		1	Revision	
60		1	Revision	
<b>Total</b>		<b>60</b>		

  
 Signature of Faculty

  
 Signature of H.O.D