

LESSON PLAN

TH 2.

CONSTRUCTION MANAGEMENT

Units	Topics	Periods
1. Introduction to Construction Management	Aims and objectives of construction management	1
	Functions of construction management.	2
	The construction team components owner, architect, contractor-heir functions and interrelationship	3
	Resources for construction management-men, machines, materials, money	4
	Unit test	5
2. Constructional Planning	Importance of Construction Planning Developing work breakdown structure for construction work	6
	Construction Planning stage -Pre-tender stage, Post-tender stage.	7
	Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works	8
	Preparation of schedules for labour materials, machinery, finance for small works	9
	Limitation of Bar charts Construction scheduling by network techniques	10
	PERT and CPM techniques, advantages and disadvantages of two techniques, network Analysis, estimation of time and critical path	11
	Unit test	12
3. Materials and Stores Management	Classification of Stores-storage of stock	13
	Issue of materials-indent, invoice, bin card	14
	Unit test	15
4. Construction Site Management	Job Lay out-Objectives, Review plans, specifications, Lay out of equipment	16
	Location of equipment, organizing labour at site	17
	Job lay out for different construction sites	18
	Principle of storing material at site	19
	Unit test	20
5. Construction Organization:	Introduction – Characteristics, Structure, importance	21
	Organization types-line and staff, functions and their characteristics	22
	Principles of organization-meaning and significance of terms- control, authority, responsibility, job & task	23
	Leadership-necessity, styles of leadership, role of leader	24
	Human relations	25
	Conflicts in organization-genesis of conflicts, types- Intrapersonal, intergroup, resolving conflicts	26
	Unit test	27

Unit	Topic	Period
6. Construction Labour and Labour Management:	Preparing Labour schedule	28
	Essential steps for optimum labour output Labour characteristics	29
	Wages & their payment. Labour incentives	30
	Motivation- Classification of motives, different approaches to motivation	31
	Unit test	32
7. Equipment Management	Preparing the equipment schedule	33
	Identification of different alternative equipment	34
	Importance of Owning & operating costs in making decisions for hiring & purchase of equipment	35
	Inspection and testing of equipment equipment maintenance	36
	Unit test	37
8. Quality Control	Concept of quality in construction	38
	Quality Standards- during construction, after construction	39
	destructive & non-destructive methods	40
	Unit test	41
9. Monitoring Progress	Programme and progress of work	42
	Work study	43
	Analysis and control of physical and financial progress corrective measures.	44
	Unit test	45
10. Safety Management In Construction	Importance of safety	46
	Causes and effects of accidents in construction work	47
	Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition.	48
	Development of safety consciousness	49
	Safety legislation- Workman's compensation act, contract labour act.	50
	Unit test	51
11. Role of Vulnerability Atlas of India in construction projects	Introduction to Vulnerability Atlas of India. Concepts of natural hazards and disasters and vulnerability profile of India	52
	Earthquake hazard and vulnerability	53
	Magnitude and intensity scales of earthquake, seismic zones, earthquake hazard maps	54
	Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps	55
	Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country	56
	Landslides, Tsunamis and Thunderstorm hazards	57
	Landslide & Thunderstorm incidence maps	58
	Housing vulnerability risk tables and usage of vulnerability atlas of India	59
	Unit test	60