Devi Ahilya University Indore, India Institute of Engineering & Technology				III Year B.E. (Civil Engineering) (Full Time)			
Subject Code and Name	Instruction Hours per Week			Credits			
6VLRG4: Construction Planning & Management	L	T	P	L	T	P	Total
Duration of Theory Paper: 3 hours	3	1	-	3	1	-	4

Course Objectives:

The course is designed

1. To study the concepts of construction resource planning, scheduling.
2. To understand the CPM and PERT models in the construction industry
3. To know about the materials and equipment used in construction projects
4. To make aware of labour management and regulations for construction activities
5. To create awareness on resource leveling and resource allocation

COURSE CONTENTS

Unit -I

Preliminary and detailed investigation methods: Methods of construction, form work and centering. Schedule of construction, job layout, principles of construction management, modern management techniques like CPM/PERT with network analysis.

Unit -II

Construction equipment: Factors affecting selection, investment and operating cost, output of various equipment, brief study of equipment required for various jobs such as earth work, dredging, conveyance, concreting, hoisting, pile driving, compaction and grouting.

Unit -III

Contracts: Different types of contracts, notice inviting tenders, contract document, departmental method of construction, rate list, security deposit and earnest money, conditions of contract, arbitration, administrative approval, technical sanction.

Unit -IV

Specifications & Public Works Accounts:

Specification: Necessity, Types of specifications, Essential requirements of specifications, Specifications for various items of works, steps involved in standard specification Various forms used in construction works, measurement book, cash book, materials at site account, imprest account, tools and plants, various types of running bills, secured advance, final bill.

Unit-V

Site Organization & Systems Approach to Planning: Accommodation of site staff, contractor's staff, various organization charts and manuals, personnel in construction, welfare facilities, labour laws and human relations, safety engineering.

Reference Books :-

1. Construction Equipment by Peurify
2. CPM by L.S. Srinath
3. Construction Management by S. Seetharaman
4. CPM & PERT by Weist & Levy
5. Construction, Management & Accounts by Harpal Singh
6. Tendering & Contracts by T.A. Talpasai

Course Outcome:

Students earned credits will develop ability to

CO.No.	CO	PO
CO1	Understand the roles and responsibilities of a project manager	PO-2, PO-3, PO-4
CO2	Develop the concept of CPM and PERT models in schedule of activities in a construction project	PO-4
CO3	Analyse tender and contract document for a construction project	PO-1, PO-2
CO4	Apply knowledge safety practices in construction industry	PO-4,PO-7
CO5	Apply knowledge of the equipments in construction .	PO-4

CO-PO Relationship

CO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO1		2	3	3								
CO2				3								
CO3	2	3										
CO4				3			2					
CO5				3								