

DISTRIBUTED DATABASES (PROGRAM ELECTIVE-IV)			
Subject Code	18ITITP801G	IA Marks	30
Number of Lecture Hours/Week	3	Exam Marks	70
Total Number of Lecture Hours	50	Exam Hours	03
Credits – 03			
Unit -1			Hours
Introduction: Distributed Data processing, Distributed database system (DDBMS), Promises of DDBMSs, Complicating factors and Problem areas in DDBMSs, Overview Of Relational DBMS Relational Database concepts, Normalization			10
Unit -2			
Distributed DBMS Architecture: DBMS Standardization, Architectural models for Distributed DBMS, Distributed DBMS Architecture. Distributed Database Design: Alternative design Strategies, Distribution design issues, Fragmentation, Allocation. Semantic Data Control: View Management, Data security, Semantic Integrity Control.			08
Unit – 3			
Overview of Query Processing: Query processing problem, Objectives of Query Processing, Complexity of Relational Algebra operations, characterization of Query processors, Layers of Query Processing. Introduction to Transaction Management: Definition of Transaction, Properties of transaction, types of transaction Distributed concurrency control: Serializability theory Taxonomy of concurrency control mechanisms, locking bases concurrency control algorithms.			12
Unit – 4			
Parallel Database Systems: Database servers, Parallel architecture, Parallel DBMS techniques parallel execution problems, parallel execution for hierarchical architecture			10
Unit – 5			
Distributed Object Database Management systems: Fundamental Object concepts and Object models, Object distribution design. Architectural issues, Object management, Distributed object storage, object query processing Transaction management Database Interoperability			10