UNIT-I:
Distributed databases features – distributed database management systems – review of databases and computer networks, levels of distribution transparency, reference architecture, type of data fragmentation, distribution transparency for read only applications and update applications, distributed database access primitives and integrity constraints.

UNIT-II:
Distributed database design, a framework for distributed database design, the design of database fragmentation, the allocation of fragments, translation of global queries to fragment queries, equivalence transformation for queries, transforming global queries into fragment queries, distributed grouping and aggregate function evaluation, parametric queries.

UNIT-III:
Query optimization, problems in query optimization, objectives in query process optimization, simpler representation of queries, model for query optimization, join queries, general queries, concept of two phase commit, resolving distributed transaction, concept of replication, snapshot on replication and multimaster replication, conflict resolution in multimaster replication, concurrency control and database recovery in distributed databases.

UNIT-IV:
The evolution of object-oriented concepts, object-oriented concepts, characteristics of an object-oriented data model, object schema, class-subclass relationships, interobject relationships, late and early binding, support for versioning, similarities and differences between OOM and other data models, features of air object-oriented databases management system.

OODBMS architectural approaches—extended relational model approach, semantic database approach, object-oriented database programming language extension approach. ODBMS generator approach, object definition language and object query language.

UNIT-V:
OODBMS architectures, performance issues in OODBMS, application selection for OODBMS, database design for an object relational database management system (ORDBMS), structured types & ADTs, object identity, extending ER model, using nested collections, storage and access methods, query processing, query optimisation. design and architecture of POSTGRES, distributed computing in CORBA and BIB.

TEXTBOOKS:
1. Distributed data bases principles and systems by Ceri & Pelagatti (McGraw Hill Pub!)
2. Fundamentals of Database System by Eliniskv & Navathe (3rd Ed. Addison W.,elsey)
3. Object Oriented Database System – Approaches & Architectures by C.S.R. P~ablui (PHE Pub.)
REFERENCE BOOKS:
I. Database System – Design Jnnpincntention & Management by Peter Rob & Carlos Coronel. (Course Tech.)

81T48 WEB TECHNOLOGIES
UNIT-1
Basic tools of internet access, e-mail, ftp, news, www, anarchie, introduction to internet programming, sockets: connections, attributes, domains, types and protocols (sockets), creating and closing sockets, socket communication, client server application using C on Linux platform.1
UNIT-II:
Standard use for www documents on internet. HTTP, MIME, SGML, DTD, MNL, URL, URI.
HTML tags, special characters in HTML forms, HTML links, HTML URLs serving HTML pages.
UNIT-III:
CGI: CGT programming using C.
UNIT-IV:
XML basics, understanding mark-up languages, structures and syntax, valid, well-formed XML, DTD (Document Type Definition) classes.
UNIT-V:
Scripting XML, XML processor, parent child relationships XML as a data, data type in XML,
XML namespaces, linking with XML simple link, the HTML way. XSL: XML with style sheet basics, XSL basics.

TEXTBOOKS:
I. XML in action web technology by William J. Pardi (P1-LI Pub.)
REFERENCE BOOKS:
I. Step by Step XML by Michael J. Young (Pill Pub.)
2. Designing Interactive Web sites by James L. Mohier & John M Duff (Thomson Learning)
PRACTICALS based on above syllabus
1. Socket programming and CGI using C on Linux platform.
2. HTML, XML web page designing.

81T47 DISTRIBUTED DATABASES & OBJECT ORIENTED DATABASES
UNIT-I:
Distributed databases features – distributed database management systems – review of databases and computer networks, levels of distribution transparency, reference architecture, type of data fragmentation, distribution transparency for read only applications and update applications. distributed database access primitives and integrity constraints.
UNIT-II
Distributed database design, a frame work for distributed database design, the design of database fragmentation, the allocation of fragments, translation global queries to fragment queries, equivalence transformation for queries, translating global queries into fragment queries, distributed grouping and aggregate function evaluation. parametric queries.
UNIT-III:
Query optimization, problems in query optimization, objectives in query process optimization, simpler representation of queries, model to: query optimization, join query, general queries,
concept of two phase commit, resolving disburced tran--action. concept of replication, snapshot on replication and multimeter replication, conflict resolution in nu1timaster replication, concurrency control and database recovery in d--tributed databases.

UNIT-IV
The evolution of object oriented concepts. object-oriented concepts, characteristics of an objectorientied data model, object schcmas, class-so bclass relationships. interobject relationships, late and early binding, support for versioning. Similarities & differences between O0DM and other data models, features of an object-oriented databases management system. OODBMS architectural approachesextended relational model approach, semantic database approach, object oriented database programming language extension approach. DBMS generator approach, object definition language and object query language.

UNIT-V:
OODBMS architectures, performance issues in OODBMS, application selection for OODBMS, database design for an object relational database management system (ORDBMS). structured types & ADTs. object identity. extending Ek model, using nested collections, storage and access methods, query processing, query optimisation. design and architecture of POSTGRES. distributed computing in CORBA and EJB.

TEXTBOOKS:
1. Distributed data bases principles and systems by Ceri & Pelagatti (McGraw Hill Pubi.)
3. Object Oriented Database System – Approaches & Architectures by C.S.R. P~abhu (Pt-il Pub.)

REFERENCE BOOKS:
1. Database System – Design Implementation & Management by Peter Rob & Carlos Coronel, (Course Tech.)

UNIT-I:
INTRODUCTION Business needs and ERP, ERP as an overview, entries as an overview, Benefits of ERP, ERP and related technologies, ERP architecture, business process reengineering, data warehousing, data mining, on line analytical processing supply choice management.

UNIT-II:
ERP II~WLEMENTATION : Client server architecture and ERP, ERP implementation life cycle, implementation m~hodologies, ER? implementation – The hidden cost, organizing implementations, vendors, consultants and users, contracts with vendors, consultants and employees, proj ect management and monitoring. After ERP implementatiou.

UNIT-III:
THE BUSINESS MODULE : Business models in an ER? package, finance, manufacturing
human resource, plant maintenance, materials management, quality management sales and distribution.

UNIT-IV:
Selection of ERP, SWOT analysis of various ERP products supply chain enabled ERP.

UNIT-IV:
ERP and Electronic Data Interchange (EDI) integration, ERP in manufacturing and nonmanufacturing industries.

TEXT BOOKS:
1. ERP Demystified by Aleris Leon (TMH Pub.)
2. Enterprise Resource Planning by Parag Diwan and Sunil Sharma (Pentageon Pren.)