

## **BCA-504B: Client Server Computing**

### **UNIT-1**

**Overview:** definition, history, myths, transition to client server computing, database architectures, advantages and disadvantages of client server architecture.

**Components :** client, server, network, role and services of client-server, selection of operating system as client & server, types of client & servers, connectivity, peer-to-peer communication

**Middle-ware :** definition, role, 2 tier v/s 3 tiers, network file system, network operating system, API, RPC model & implementation

### **UNIT-II**

**Communication in client-server:** Using OSI layer, TCP/IP networks.

**Client/Server processing and application development:** transaction processing, remote processing, distributed processing, distributed databases, development tools

### **UNIT-III**

**Distributed Objects:** CORBA architecture and services, COM, DCOM, Java-RMI

**Database Drivers:** ODBC driver, JDBC driver.

**Linking and Embedding:** OLE and DDE

### **UNIT-IV**

**Data warehousing:** operational data & analytical data, characteristics, architecture, Data warehouse options.

**Oracle as database server:** Memory architecture, Process architecture

**Introduction to PL/SQL Programming:** Data types, Control statements, cursors, triggers, exception handling, procedure and functions

### **UNIT-V**

**Managing C/S Applications:** network management, database backup, database recovery, Data integrity, Data security.

**Latest technology and tools used for Client Server Computing**

**Text/Reference books:**

1. Client server Computing: Patrick Smith
2. Client Server survival guide, 3 rd Edition: Robert Orfali
3. Client server unleashed

BCA -S505: JAVA Programming Lab  
Practical based on paper BCA 502

BCA- S506: Minor Project based on Web Technology

BCA- S507: Practical on any one of the following

BCA-S507A Microsoft .NET Programming Lab  
BCA-S507B Advanced Web Tools

BCA-S508: **Seminar**: Seminar topics to be allotted in the beginning of the course by issuing schedule of seminars including faculty seminars