

**MCA**  
**(SEM IV) THEORY EXAMINATION**  
**CLIENT SERVER COMPUTING**

**Time: 3 Hours**

**Total Marks: 70**

**Note:** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

- 1. Attempt *all* questions in brief. 2 x 7 = 14**
- a. Draw the three tier architecture of DBMS.
  - b. Differentiate between stateful and stateless servers.
  - c. What is dynamic data exchange?
  - d. What do you understand by DDE?
  - e. Describe these protocols: TELNET, FTP, SMTP.
  - f. Write about tape optical disk.
  - g. Explain CGI in brief.

**SECTION B**

- 2. Attempt any *three* of the following: 7 x 3 = 21**
- a. Discuss the role of client in client/server computing and also explain the various services provided by client.
  - b. List and explain the sequence of events during remote procedure call?
  - c. Write short notes on the following:
    - 1) Ethernet
    - 2) UNIX workstation.
  - d. What are different hardware and software for end-users? Explain them in detail.
  - e. What are the role of training in successful deployment of Client/ Server Computing systems? Explain various options to accomplish the training of staff.

**SECTION C**

- 3. Attempt any *one* part of the following: 7 x 1 = 7**
- (a) Draw the block diagram of client/server architecture and explain the advantages of client/server computing with the help of suitable example.
  - (b) Explain about the various client server system development Tools.
- 4. Attempt any *one* part of the following: 7 x 1 = 7**
- (a) What is Network operating system. Discuss its advantages.
  - (b) Describe Object Linking and Embedding (OLE) with an example.
- 5. Attempt any *one* part of the following: 7 x 1 = 7**
- (a) Briefly describe PC level processing unit in client/server computing.
  - (b) What are various hardware requirements in a typical client/server under network environment?

6. **Attempt any *one* part of the following:** **7 x 1 = 7**
- (a) Write and describe various types of data storage system. Give merits and Demerits of each.
  - (b) Briefly describe the following terms in Client/Server computing environment:
    - 1) Protection Devices
    - 2) RAID

7. **Attempt any *one* part of the following:** **7 x 1 = 7**
- (a) List and explain the training advantages of GUI application.
  - (b) What are different client server computing enabling technologies? Explain about Expert System.