Exam. Code : 208601
Subject Code : 4695

M.Sc. (IT) Semester—I
DISTRIBUTED COMPUTING
Paper—MIT-102

Time Allowed—3 Hours]   [Maximum Marks—100

Note :— Attempt any **five** questions. All questions carry equal marks.

1. What are various hardware and software issues of distributed systems ? Explain them in detail.   20

2. (a) Explain RPC by taking an example.   10

   (b) What are main objectives of distributed systems ? Explain.   10

3. (a) Explain the concept of mutual exclusion in distributed systems.   10

   (b) Discuss the role of logical clocks and physical clocks in synchronization.   10

4. What is Thread Synchronization ? Explain the implementation issues of Threads in distributed systems.   20

5. (a) What are the exceptions in Client Server and RPC models ?   10

   (b) Discuss the concept of Marshalling.   10

6. (a) Compare Client Server and Peer-to-Peer. 10

(b) Differentiate between multicast and atomic broadcast.

10

7. (a) What is the concept of Naming and Location transparency in distributed file systems ? 10

(b) Explain DSM architecture in detail. 10

8. Write short notes on the following :

(a) Cryptography 10

(b) Cache Coherence. 10