

MCA 5th Sem-2019

Full Marks-70

Time: 3 hours

The questions are of equal value. Answer all questions.

1. What is a distributed system? Discuss its advantages over centralized systems and over independent PCs. Write its disadvantages.

OR

- (a) Differentiate between a crossbar switch and omega switch network.
- (b) Differentiate between network and distributed operating systems.

2. Discuss the following design issues for a distributed system?

- (a) Transparency
- (b) Reliability

OR

Discuss the following design issues for a distributed system?

- (a) Flexibility
- (b) Scalability

3. What is ATM? Discuss the functions of each layer of ATM model. Explain ATM switching.

OR

Discuss the functions of each layer of OSI model.

4. Differentiate between the followings in a client-server model:

- (a) Blocking vs Non-blocking primitives
- (b) Buffered vs Un-buffered primitives

OR

Explain the client-server model. Discuss various addressing mechanisms that can be used to address processes in this model.

5. What is RPC? Explain its basic operation with diagram. Write its advantages and disadvantages.

OR

What are the five different classes of failures that can occur in RPC systems? Explain the RPC semantics in the presence of these failures.