

**B.Tech. VIII Semester (Main&Back) Examination, April - 2019**  
**Computer Science And Engineering**  
**8CS3A Distributed Systems**

**Time : 3 Hours**

**Maximum Marks : 80**

**Min. Passing Marks : 26**

**Instructions to Candidates:**

*Attempt any Five questions, selecting One question from each unit. All Questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly).*

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**Unit - I**

1. Explain various types of operating systems associated with the distributed systems along with design issues in distributed operating systems. centralized network (16)  
distribution cooperative
- (OR)
1. a) Explain Goals and Services of distributed systems. (8)
- b) Write and explain various theoretical issues in distributed systems. (8)

**Unit - II**

2. a) Explain Graph models for process representation in detail. (8)
- b) What is synchronization and how it is required in concurrent process and programming? Explain. (8)
- (OR)
2. a) Explain the concept of RPC and RMI's in distributed systems. (10)
- b) Write short note on message passing. (6)

**Unit - III**

3. Explain Dynamic Load Sharing and balancing and its requirement in distributed process scheduling with justification. (16)
- (OR)
3. a) What is transaction service and concurrency control? Explain. (8)
- b) Explain Data and file Replication in Distributed File systems. (8)

#### **Unit - IV**

4. What is Distributed Shared memory? Explain its implementation in distributed systems. (16)

**(OR)**

4. Explain following in distributed computation.

- a) Failures in a Distributed System. (8)
- b) Distributed deadlock handling. (8)

#### **Unit - V**

5. a) Explain the concept of Replicated data management and various issues associated with Replicated data management in detail. (10)

- b) Describe concepts of faults, failure and Recovery. (6)

**(OR)**

5. Explain following in detail.

- a) CORBA RMI and services. (8)
- b) Byzantine faults and Agreement. (8)

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