8E8163

Roll No. _____ [Total No. of Pages : 2

8E8163

B.Tech. VIII Semester (Main/Back) Examination, April/May-2017

Computer Science & 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 suitable be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.*

Unit-I

1. a) State and explain the challenges of distributed system. **(10)**

   b) Explain Architecture models. **(6)**

OR

1. a) Define the term distributed system and explain with two examples. **(6)**

   b) What is theoretical issues in distributed system? **(6)**

   c) Explain Distributed Computing Environment (DCE). **(4)**

Unit-II

2. Discuss the design and implementation issues in Remote Method Invocation. **(16)**

OR

2. a) Discuss the detail about communication and invocations **(8)**

   b) Where do you need RPC? Explain with suitable example. **(8)**

Unit-III

3. a) Classify the type of transparency that a distributed file system should support? **(8)**

   b) What is distributed process implementation and also explain static process scheduling with communication. **(8)**

OR

3. Write short note on (any two) : **(2×8=16)**

   a) General parallel file system and window's file system

   b) Andrew and coda file systems

   c) Sun network file system

Unit-IV

4. a) Explain how mutual exclusion is handled in distributed system? **(8)**

   b) What is the implementation of DSM system? **(8)**

OR

4. a) Describe mechanism for deadlock detection in distributed system. **(6)**

   b) What is Dynamic distributed manager algorithm and also explain Thrashing? **(10)**

Unit-V

5. a) Define Byzantine agreement problem with its solution. What do you mean by agreement protocol? **(8)**

   b) Discriminate passive replication and active replication. **(8)**

OR

5. Write short notes on (any two) : **(2×8=16)**

   a) Atomic Multicast

   b) CORBA RMI

   c) Failure and Recovery in DS

   d) Byzantine faults