Roll No ....

IT-6005(2)-CBGS
B.E. VI Semester
Examination, June 2020
Choice Based Grading System (CBGS)
Distributed System

Time : Three Hours

Maximum Marks : 70

Note: i)   Attempt any five questions.

     ii)   All questions carry equal marks.

1. a) Explain the various challenges in the Distributed Systems?

     b) Explain Lamport's logical clock and limitations of Lamport's clocks.

2. a) What problems encounter in the Distributed System due to absence of Global clock?

     b) Explain various token based algorithms:

         i) Suzuki - Kasami Broadcast Algorithm

         ii) Singhal's Heuristic algorithm

3. a) Explain Byzantine agreement problem and agreement and validation condition for it.

     b) How are agreement protocol are classified? Explain in detail.

4. a) Differentiate between communication and resource deadlock.

     b) Explain deadlock handling strategy in distributed system.

5. a) Describe the features of Java RMI.
    b) Explain the architecture of SUN Network file system.

6. a) Explain the various design issues of file system? What are the goals of distributed file system?
    b) What do you understand by Replication? Explain in brief of explicit replication.

7. a) Discuss concurrency control in distributed transactions.
    b) Write short notes:
        i)   Atomic Commit Protocol
        ii) Transaction Recovery

8. a) What are wave and traversal algorithm? Explain the termination decision and dependence requirement of wave algorithm.
    b) Discuss the functionality of deadlock free packet switching and explain the role of store and forward technique.

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