*Total No. of Questions : 8]* *[Total No. of Printed Pages : 2*

**Roll No** .....

# CS-7001-CBGS

## B.E. VII Semester

Examination, December 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) Why would you design a system as a distributed system? List some advantages of distributed system.
   b) Discuss the Architecture of distributed system.

2. a) How Shared Address Space (SAS) architecture helpful for distributed system?
   b) Explain the hints, caching, mounting and bulk data transfer with reference to distributed file system in detail with examples.

3. a) Explain naming in detail. What is the role of Naming services.
   b) Why is clock synchronization is necessary? Describe the design requirements for a system to synchronyse the clocks in a distributed system.

4. a) Explain the Lamport's logical clock and their limitations? Also explain the vector clock.
   b) Explain Bully and Ring election algorithm with suitable examples.

5. a) Differentiate between internal synchronization and external synchronization of clocks in a distributed system. Externally synchronized clocks are also internally synchronized but the converse is not true. Explain why?
   b) Explain how mutual exclusion is handled in distributed system.

6. a) List out the issues in load balancing algorithms. Discuss about any four policies of load balancing algorithm.
   b) Explain the method for distributed deadlock detection and distributed deadlock prevention.

7. a) What is the need of clock synchronization in distributed system?
   b) Explain the different component of Load distributing Algorithms.

8. Write short notes on the following.
   a) Distributed Multimedia
   b) Fault-Tolerant Services.

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