Question Paper Code: 46204

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Sixth Semester

Computer Science and Engineering

14UCS604 - DISTRIBUTED SYSTEMS

(Regulation 2014)

Duration: 1.15 hrs   Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The _____ is also a very large distributed system.

    (a) Internet   (b) WWW   (c) Web service   (d) Server

2. which common characteristics can be used to assess distributed systems?

    (a) Resource Sharing   (b) Concurrency
    (c) Scalability   (d) All the above

3. TCP provides the abstraction of a _____ stream between pairs of processes.

    (a) two-way   (b) single-way
    (c) multi-way   (d) none of these

4. The send operation is non-blocking in the sending process. The receive operation can have blocking and non-blocking variants in

    (a) synchronous form of communication
    (b) Asynchronous form of communication
    (c) both (a) and (b)
    (d) none of these

5. In distributed systems, link and site failure is detected by,

    (a) Polling   (b) Handshaking   (c) Token passing   (d) None of the mentioned

6. The contention for the usage of a hardware device is called as

    (a) Structural hazard   (b) Stalk

    (c) Deadlock   (d) None of these

7. _____demonstrated the feasibility of building a useful large-scale service that depends almost wholly on data and computers owned by ordinary Internet users.

    (a) Napster   (b) legacy   (c) Global state   (d) Transaction

8. _____the performance of any system designed to exploit a large number of computers depends upon the balanced distribution of workload across them.

    (a) Global scalability   (b) Load balancing

    (c) dynamic host   (d) functional requirements

9. If a collection of processes share a resource or collection of resources, then _____is required to prevent interference and ensure consistency when accessing the resources. This is the critical section problem.

    (a) Concurrency Control   (b) Transactions
    (c) mutual exclusion   (d) Deadlock

10. Abstraction of a single activity

    (a) Process   (b) Thread   (c) Region   (d) Program

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11.   Describe how to compare and contrast cloud computing with more traditional client-server computing? What is novel about cloud computing as a concept?   (8)

12.   Discuss about System Models.   (8)

13.   Explain the main task of the Distributed algorithm which is used for locating nodes and objects.   (8)

14.   Compose the followings: (i) Clocks (ii) Events (iii) Process States (iv) UTC.   (8)

15.   Explain about distributed shared memory with neat sketch. Also discuss its issues in design and implementation.   (8)