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Question Paper Code: 36204

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

Sixth Semester

Computer Science and Engineering

01UCS604 - DISTRIBUTED SYSTEMS

(Regulation 2013)

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. Discuss the characteristics of distributed systems. (8)
12. Describe the characteristics of inter process communication. Also create API for internet protocols and its addressing with a neat sketch. (8)
13. Explain about file service architecture. (8)
14. Explain about optimistic concurrency control and timestamp ordering in detail. (8)
15. Explain in detail about Resource Management. (8)