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 **Reg. No. :**

**Question Paper Code: 46024**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Sixth Semester

Computer Science and Engineering

14UCS604 – DISTRIBUTED SYSTEMS

 (Regulation 2014)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

(Smith chart may be permitted)

PART A - (10 x 1 = 10 Marks)

1. In distributed system each processor has its own,

(a) Local memory (b) Clock (c) Both (a) and (b) (d) None of the mentioned

2. If one site fails in distributed system

(a) The remaining sites can continue operatin (b) All the sites will stop working

(c) Directly connected sites will stop working (d) None of the mentioned

3. Which technique is based on compile-time program transformation for accessing remote

 data in a distributed-memory parallel system.

 (a) Cache coherence scheme (b) Computation migration

 (c) Remote procedure call (d) Message passing

4. Processes on the remote systems are identified by,

 (a) Host ID (b) Host name and identifier (c) Identifie (d) Process ID

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

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

6. Internet provides \_\_\_\_\_\_\_ for remote login.,

(a) Telnet (b) Http (c) Ftp (d) RPC

7. \_\_\_\_\_\_ of the distributed file system are dispersed among various machines of

 distributed system.

 (a) Clients (b) Servers (c) Storage devices (d) All of the mentioned

8. Which one of the following hides the location where in the network the file is stored?

 (a) Transparent distributed file system (b) Hidden distributed file system (c) Escaped distribution file system (d) Spy distributed file system

9. In distributed file system, when a file’s physical storage location changes

 (a) File name need to be changed (b) File name need not to be changed

 (c) File’s host name need to be changed (d) File’s local name need to be changed

10. There is no need to establish and terminate a connection through open and close

 operation in

(a) Stateless file service (b) Stateful file service

(c) Both (a) and (b) (d) None of the mentioned

PART - B (5 x 2 = 10 Marks)

11. What is the use of firewall?

12. What is the use of multicast?

13. What is meant by directory services?

14. What is logical clock?

15. Define Process migration.

PART - C (5 x 16 = 80 Marks)

16. (a) Describe how to compare and contrast cloud computing with more traditional client-server computing? What is novel about cloud computing as a concept? (16)

Or

(b) (i) Explain the distributed system and Analyze the characteristics of Distributed

 system. (8)

 (ii) Demonstrate how distributed computing is used as an utility (8)

17.(a) (i) What is RMI? How it is implemented? Write notes on JAVA RMI. (8)

 (ii) What is meant by Publish-subscribe systems? Write short notes on it. (8)

Or

 (b)(i) Write a detailed note on remote procedure call. (8)

 (ii) Write in brief about message queues. (8)

18. (a) Define Peer to Peer systems. Explain in detail the working of Peer to Peer Systems.

 (16) Or

 (b) Analyze in detail about Distributed File system, its characteristics and requirements. (16)

19. (a) Distinguish and examine the process of active and passive replication model. (16)

Or

(b) Design Flat transaction and nested transaction with example. (16)

20. (a) Explain, how process migration is implemented in heterogeneous system? (16)

Or

(b) Briefly introduce the Resource management techniques and mechanism in details. (16)