

(6 pages)

Reg. No. :

Code No. : 9092

Sub. Code : PCSM 15

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2017.

First Semester

Computer Science

DISTRIBUTED COMPUTING

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The processors which do not share memory, and each processor has its own local memory is called
 - (a) Groupware
 - (b) Loosely coupled systems
 - (c) Workstation
 - (d) None

2. The network which uses bus and ring topology for constructing are
 - (a) LAN
 - (b) WAN
 - (c) MAN
 - (d) All of the above
3. The communicating processes are on different nodes are called
 - (a) Local communication
 - (b) Variable communication
 - (c) Message passing
 - (d) Remote communication
4. In _____ the desired communication is explicitly named as a parameter.
 - (a) Explicit addressing
 - (b) Implicit addressing
 - (c) Remote addressing
 - (d) None
5. Expand RPC
 - (a) Remote procedure calls
 - (b) Remote passing calls
 - (c) Remote passing communication
 - (d) None



6. The protocol that defines control information in each transport packet to track the state of a call is known as
- (a) Transport protocol
 - (b) Data representation
 - (c) control protocol
 - (d) All of the above
7. A _____ is a special type of message that entitles its holder to enter a critical section is called
- (a) message passing
 - (b) identifier
 - (c) algorithm
 - (d) Tokens
8. The relocation of a process from its current location to another node is known as
- (a) process allocation
 - (b) process migration
 - (c) Transparency
 - (d) Threads

9. The system that provides the flexibility to their users to use different computer platforms for different applications are known as
- (a) heterogeneous distributed systems
 - (b) homogeneous distributes system
 - (c) hybrid distributed system
 - (d) none
10. _____ is used in describing relationship among the transactions belonging to the same family
- (a) top level transaction
 - (b) sub transactions
 - (c) Tree terminology
 - (d) Down level transaction

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain LAN topology with diagram.

Or

- (b) Write a note on distributed operating system.



12. (a) Explain about buffering.
Or
(b) Discuss about the process addressing.
13. (a) Explain the RPC implementation mechanism.
Or
(b) Discuss about replacement strategy in Distributed shared memory.
14. (a) Write a note on implementation of logical clocks.
Or
(b) Explain with the diagram about process migration.
15. (a) Discuss about the file models.
Or
(b) Write the operations for transaction based file service.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Write about the DCE components.
Or
(b) Discuss about Internetworking.

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17. (a) What are the desirable features of a good message passing system.
Or
(b) Discuss about encoding and Decoding of message data.
18. (a) Explain the RPC model.
Or
(b) Give a brief account on design and Implementation issues of DSM.
19. (a) Discuss on centralized approach for mutual exclusion.
Or
(b) Write a note on Threads and motivation for using threads.
20. (a) What are file replication? Explain the advantages of replication.
Or
(b) Discuss briefly about fault Tolerance.

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