

(6 pages)

Reg. No. :

Code No. : 6417

Sub. Code : HCSE 11

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2013.

First Semester

Computer Science

Elective – DISTRIBUTED OPERATING SYSTEM

(For those who joined in July 2012 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Coordination techniques like _____ are used in many databases to implements fault-tolerance and strong data consistency.
- (a) Leader election (b) Concurrency
(c) integrity (d) Cache Consistency

2. A Device that forwards data packets from one network to another is
- (a) Hub (b) Bridge
(c) Switch (d) Gateway
3. In the case of _____ primitive, after execution of the send statement, the sending process is blocked until an acknowledgement is received.
- (a) Receiving (b) Blocking send
(c) Send (d) Blocking Receive
4. In _____ the type of each program object along with its value is encoded in the message.
- (a) Direct representation
(b) Tagged representation
(c) Untagged representation
(d) Indirect representation
5. In any recovery approaches deadlock is broken by killing or rolling back one or more processes which is known as _____.
- (a) Prevention (b) Starvation
(c) Election (d) Victim



6. In the _____, mutual exclusion is achieved by using a single token that is circulated among the processes in the system.
- (a) End to End Approach
 - (b) Token passing approach
 - (c) Naïve approach
 - (d) None
7. Remote Procedure calls that are indistinguishable from local procedure calls known as
- (a) Migration Transparency
 - (b) Location Transparency
 - (c) Ideal Transparency
 - (d) None
8. The Purpose of _____ is to manipulate the data contained in a call or reply message so that it is suitable for transmission over the network.
- (a) Client and Server Stub
 - (b) Local Stub
 - (c) Sender and Receiver Stub
 - (d) None

9. _____ is the ability of a system to continue functioning, in the event of partial system failure.
- (a) Inter process communication
 - (b) Fault Tolerance
 - (c) Memory management
 - (d) None
10. A _____ is a system – oriented name that uniquely identifies an object.
- (a) Naming system
 - (b) Encoding
 - (c) Decoding
 - (d) Capability

PART B — (5 × 5 = 25 marks)

Answer All the questions, choosing either (a) or (b).

11. (a) Write in short note about the features of Distributed Operating Systems.
- Or
- (b) Write brief note on Token Ring Protocol and Slotted Ring Protocol.
12. (a) Write short note about the features of message passing.
- Or
- (b) Give brief note on Encoding and Decoding of Message Data.



13. (a) Write short note about Granularity.

Or

(b) Write short note about Replacement strategy.

14. (a) Write short note on File Sharing semantics.

Or

(b) Write short note on Locking.

15. (a) Write short note about the Passive attacks in Security.

Or

(b) Write short note about Symmetric and Asymmetric Cryptosystems.

PART C — ($5 \times 8 = 40$ marks)

Answer All the questions, choosing either (a) or (b).

16. (a) Explain in detail why are distributed computing systems gaining popularity?

Or

(b) Explain in detail about the Switching Techniques.

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17. (a) Explain in detail about the Process Addressing.

Or

(b) Describe about the Group Addressing in Group communication.

18. (a) Explain in detail about the Advantages of Distributed Shared Memory.

Or

(b) Explain in detail about Centralized and Distributed Algorithms.

19. (a) Explain in detail about the Distributed Transaction Service.

Or

(b) Explain in detail about the File Replication.

20. (a) Explain in detail about User Login Authentication.

Or

(b) Describe about the Access Control Mechanism in Security.

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