BRAINWARE UNIVERSITY

Term End Examination 2022
Programme – M.Tech.(CSE)-2021
Course Name – Distributed System
Course Code - PEC-MCS302B
(Semester III)

Full Marks : 60   Time : 2:30 Hours
[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A
(Multiple Choice Type Question)   1 x 15=15

1. Choose the correct alternative from the following :

(i) Resources and clients transparency that allows movement within a system is called _____

a) Mobility transparency
b) Concurrency transparenc
c) Replication transparency
d) Performance transparency

(ii) The transparency that enables multiple instances of resources to be used, is called _____

a) Performance transparency
b) Scaling transparency(
c) Concurrency transparencReplication transparency

(iii) What is not true about distributed system ?

a) It is a collection of processor
b) All processors are synchronized
c) They do not share memory
d) Process to Process Commuication

(iv) Which is not a advantage of Distributed Systems over Independent PCs?

a) Data sharing
b) Resource Sharing
c) Communication
d) No resource sharing

(v) If timestamps of two events are same, then the events are _____

a) Concurrent
b) Non-concurrent
c) Monotonic
d) Non-monotonic(

(vi) In the token passing approach of distributed systems, processes are organized in a ring structure _____

a) Logically
b) Physically
c) Both logically and physically
d) Independently

(vii) For system protection, a process should access _____

a) All the resources
b) Only those resources for which it has authorization

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c) Few resources but authorization is not required

d) Only a few resources

(viii) Microkernel is reponsibe for mapping each virtual

    a) Module

    b) I/O devices

    c) Memory

    d) Page

(ix) In a distributed system, information is exchanged through _____

    a) Memory sharing

    b) Message passing

    c) Token passing

    d) Cache

(x) Machine that places the request to access the data is generally called as _____.

    a) Server Machine

    b) Client Machine

    c) Request Machine

    d) Response machine

(xi) An architecture where clients first communicate the server for data then format and display it to the users, is known as _____

    a) Client/Server architecture

    b) Three-tier architecture

    c) Two-tier architecture

    d) Peer-to-Peer architecture

(xii) Kernel mode of operating system is also called

    a) User mode

    b) System mode

    c) Supervisor mode

    d) Non-supervising mode

(xiii) With Microkernel architecture it is possible to handle hardware interrupts as

    a) Application

    b) Information

    c) Data

    d) Message

(xiv) Example of monolithic Kernel based operating system

    a) Unix

    b) Linux

    c) Both Unix and Linux

    d) None of these

(xv) Which thread management work done by a pure Kernel Level Thread facility?

    a) Kernel

    b) Program

    c) Application

    d) Information

Group-B
(Short Answer Type Questions)

3 x 5=15

2. Explain about inherent limitations of distributed system?   (3)
3. Explain about memory coherence.   (3)
4. Explain about caches in distributed system.   (3)
5. What are the goals of distributed file system?   (3)
6. Compare token and non token based algorithm.   (3)

OR

Constrcut your opinion what is the use of remote object references?   (3)

Group-C
(Long Answer Type Questions)

5 x 6=30

7. Explain public-key cryptography with diagram.   (5)
8. Explain Complete deadlock detection algorithm for Distributed Deadlock Detection.   (5)
9. Explain Fundamental and Failure model in details.   (5)
10. Explain about working principle of RPC.   (5)
11. Define centralized control for Distributed Deadlock Detection.   (5)
12. Discuss the Lamport logical clock.   (5)

OR

Explain about Network File System.   (5)

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