BRAINWARE UNIVERSITY

Term End Examination 2021 - 22
Programme – Bachelor of Technology in Computer Science & Engineering
Course Name – Distributed Systems
Course Code - PEC-601B
(Semester VI)

Time allotted : 1 Hrs.25 Min. **Full Marks : 70**

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question) 1 x 70=70

Choose the correct alternative from the following :

(1) Which amongst the following is not an advantage of Distributed systems?
a) Resource sharing
b) Incremental growth
c) Reliability
d) Process to Process Commuication

(2) Resources and clients transparency that allows movement within a system is called _____
a) Mobility transparency
b) Concurrency transparency
c) Replication transparency
d) Performance transparency

(3) The transparency that enables multiple instances of resources to be used, is called _____
a) Performance transparency
b) Scaling transparency
c) Concurrency transparency
d) Replication transparency

(4) Whic is not a characteristics of a distributed system?
a) Heterogeneity
b) Openeness
c) Scalability
d) Global clock

(5) What is not a major reason for building distributed systems?
a) Resource sharing
b) Computation speedup
c) Reliability
d) Simplicity

(6) Which is not a design issue in distributed system structure ?
a) Scalability
b) Fault-tolerance
c) Flexibility
d) Non-scalability

(7) Common problem found in distributed system ?
a) Process Synchronization
b) Communication synchronization
c) Deadlock problem
d) Power failure

(8) If timestamps of two events are same, then the events are _____
a) Concurrent
b) Non-concurrent
c) Monotonic
d) Non-monotonic

(9) If a process is executing in its critical section, _____

a) Any other process can also execute in its critical section
b) No other process can execute in its critical section
c) One more process can execute in its critical section
d) All processes execute

(10) 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

(11) Logical clock measures

a) Day time
b) Night time
c) Relationship among events
d) Only event time

(12) In which algorithm, One process is elected as the coordinator.

a) Distributed mutual exclusion algorithm
b) Centralized mutual exclusion algorithm
c) Token ring algorithm
d) Leaky bucket alogorithm

(13) Which principle states that programs, users and even the systems be given just enough privileges to perform their task?

a) Principle of operating system
b) Principle of least privilege
c) Principle of process scheduling
d) Principle of non process scheduling

(14) Choose one of the best options from the following. Dump of memory of the computer system is examined by the ___?

a) Programmer
b) Debugger
c) Designer
d) Engineer

(15) RPC (remote procedure call) is initiated by the _____

a) Server
b) Switch
c) Hub
d) Gateway

(16) Remote Procedure Calls are used :

a) For communication between two processes remotely different from each other on the same system
b) For communication between two processes on same system
c) For communication between two processes on separate systems
d) For communication between three processes v n a system

(17) In Message-Passing Systems ,A message-passing facility provides at least two operations:

a) send(message) and delete(message)
b) delete(message) and receive (message)
c) send(message) and receive(message)
d) write(message) and delete(message)

(18) 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

(19) 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

(20) In remote procedure call, the client program must be bound with a small library procedure called _____

a) Server stub
b) Marshalling
c) Local Procedure Call
d) Client hub

(21) RPC connectors and message queues are mechanisms for _____

a) Message retrieving
b) Message passing
c) Message delivering
d) Message Synchronizing

(22) Microkernel architecture facilates

a) Flexibility
b) Extensibility

c) Reliability
d) Portability

(23) Modular design helps to enhance
a) Functionality
b) Reliability
c) Portability
d) Rigidity

(24) In which algorithm, One process is elected as the coordinator.
a) Distributed mutual exclusion algorithm
b) Centralized mutual exclusion algorithm
c) Token ring algorithm
d) Lamport algorithm

(25) Which mutual exclusion algorithm is useful when the membership of the group is unknown?
a) Centralized
b) Lamport's
c) Token ring
d) Decentralized Algorithm

(26) NTP is _____ layer protocol.
a) Application
b) session
c) transport
d) physical

(27) Suzuki-Kasami's Broadcast Algorithm is an
a) Non- token based algorithm
b) Token based algorithm
c) Centralized Based algorithm
d) physical clock synchronization algorithm

(28) Which event is concurrent with the vector clock (2, 8, 4)?
a) (3,9,5)
b) (3,8,4)
c) (1,7,3)
d) (4,8,2)

(29) This is not feature of cooperative algorithm
a) Complex
b) Larger overhead
c) Worst stability
d) Better stability

(30) Distributed syatem consists of set of resources intecrconnected
a) Printer
b) Processor
c) CD
d) Processes

(31) How is access to resources of various machines is done?
a) Remote logging using ssh or telnet
b) Zone are configured for automatic access
c) FTP is not used
d) FTP is used

(32) What are the characteristics of data migration?
a) Transfer data by entire file or immediate portion r equired
b) Transfer the computation rather than the data
c) Execute an entire process or parts of it at different sites
d) Execute an entire process or parts of it at same sit e

(33) What are the characteristics of computation migration?
a) Transfer data by entire file or immediate portion r equired
b) Transfer the computation rather than the data
c) Execute an entire process or parts of it at different sites
d) Execute an entire process or parts of it at same sit e

(34) What are the characteristics of process migrration
a) Transfer data by entire file or immediate portion r equired
b) Transfer the computation rather than the data
c) Execute an entire process or parts of it at different sites
d) Execute an entire process or parts of it at same sit e

(35) In which of the following consistency model all writes become perceptible to all processes
a) Strict
b) Weak
c) Casual
d) Sequential

(36) The placement of replica servers is
a) Optimization problem
b) More of management issue

c) Consistency
d) Performance

(37) The dynamic replication algorithm takes into account
a) To reduce load on server
b) Files on server can be migrated anywhere
c) Schedule process migration
d) Resource sharing

(38) State transition failures happens
a) Server fails
b) Server reacts unexpectedly
c) Client fails
d) Network fails

(39) _____ is not possible in distributed file system.
a) File replication
b) Migration
c) Client interface
d) Remote access

(40) 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

(41) In a distributed file system, _____ is mapping between logical and physical objects.
a) Client interfacing
b) Naming
c) Migration
d) Heterogeneity

(42) 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 stateless and stateful file service
d) Session store service

(43) In distributed file system, file name does not reveal the file's _____
a) Local name
b) Physical storage location
c) Both local name and physical storage location
d) Logical Name

(44) What are not the characteristics of a DFS?
a) Login transparency and access transparency
b) Files need not contain information about their ph sical location
c) No Multiplicity of users
d) No Multiplicity if files

(45) Which is not a major component of a file system?
a) Directory service
b) Authorization service
c) Shadow service
d) System service

(46) What are the advantages of file replication ?
a) Improves availability &performance
b) Decreases performanc
c) They are consistent
d) Improves speed

(47) DSM stands for_____
a) Direct shared memory
b) Direct system memory
c) Distributed shared memory
d) Distributed system memory

(48) What is NUMA?
a) NON Universal Mapping Access
b) NON Uniform Memory Access
c) NON Uniform Mapping Access
d) Network Uniform Memory Access

(49) In the distributed system, data is duplicated mainly for _____
a) Security
b) Reliability and performance
c) Consistency
d) Nonconsistency

(50) The problem of _____ may occur when data items in the same data block are being updat ed by multiple nodes at the same time.
a) Thrashing
b) Granularity
c) consistency
d) Nonconsistency

(51) _____ occurs when two different processes access two unrelated variables that reside

in the same data block

a) Consistency
b) Paging overhead
c) False sharing
d) True sharing

(52) In _____ approach, Shared-memory space is ordered as an associative memory call ed a tuple space.

a) No structuring
b) Structuring as a database
c) Structuring by data type.
d) Structuring as a program

(53) Implementation of the _____ model for a DSM system is practically impossible.

a) Strict consistency
b) Causal consistency
c) sequential consistency
d) Non-sequential consistency

(54) A shared-memory system is said to support the sequential consistency model if all processes see the _____ of all memory access operations on the shared memory.

a) Same order
b) Different order
c) Different address
d) Same address

(55) In the _____ model, Memory reference operations that are not potentially causally related may be seen by different processes in different orders.

a) Strict consistency
b) Sequential consistency
c) Weak consistency
d) Causal consistency

(56) The DSM system that supports the _____ model uses a special variable called a synchr onization variable.

a) Weak consistency
b) PRAM consistency
c) Sequential consistency
d) Causal consistency

(57) In Replicated migrating blocks, The two basic protocols that may be used for ensuring sequential consistency in this case are _____

a) Read-invalidate and Write-update
b) Write-invalidate and Write-update
c) Write-invalidate and Read- update
d) Read-invalidate and Read-update

(58) Which of the following is not a stream cipher?

a) TBONE
b) RC5
c) RC4
d) Two fish

(59) _____ refers to identifying each user of the system and associating the executing programs wit h those users.

a) One Time passwords
b) Authentication
c) Program Threats
d) Security

(60) Microkernel design imposes a uniform

a) Process
b) Processor
c) Interface
d) System

(61) Microkernel supports

a) Flexibility
b) Reliability
c) Accessible
d) Rigid

(62) Thread processor affinity is set of

a) Processes
b) Processors
c) Programs
d) Applications

(63) In UNIX, thread is

a) Runnable
b) Executing
c) Updated
d) Access

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

a) Application
b) Information
c) Data
d) Message

(65) Which java feature is used to invoke a method on a remote object?

a) Process Control Block (PCB)
b) Remote Method Invocation (RMI)
c) Remote access control Block
d) Resource Allocaton graph

(66) Fastest form of inter process communication provided in UNIX is

a) Virtual Memory
b) Memory
c) Shared Memory
d) Main Memory

(67) In distributed system, link and site failure is detected by

a) Polling
b) Handshaking
c) Token-passing
d) Virtual routing

(68) The capability of a system to adapt the increased service load is called

a) Scalability
b) Tolerance
c) Capacity
d) Openness

(69) What is not a major reason for building distributed systems

a) Resource sharing
b) Computatuion speedup
c) Reliability
d) Simplicity

(70) What are connection strategies not used in distributed systems

a) Circuit switching
b) Message switching
c) Token switching
d) Packet switching