M.SC(IT) I YEAR(2017-2019)
CORE: DISTRIBUTED OPERATING SYSTEM-163A
Semester : I
Multiple Choice Questions

1) _____ is said to occur when the system spends a large amount of time spent doing the useful work of executing application processes.

a) Thrashing
b) Congestion
c) granularity
d) consistency

2) _____consistency model cannot be implemented in real life.

a) strict.
b) weak.
c) release.
d) acquire & release.

3) _____,_____and_____are the three primitives of building agent interface.

a) register, deregister, lookup
b) register, deregister, likelihood
c) register, deregister, distance
d) none of the above

4) _____algorithm are not suitable for a DSM system.

a) usage based algorithm
b) non-usage based algorithm
c) fixed space algorithm
d) variable-space algorithm

5) _____are independent of transport protocols.

a) RPC protocol
b) IPC protocol
c) TCP protocol
d) IP protocol

6) _____defines the end of a phase of execution of a group of concurrently executing processes.

a) acquire.
b) release.
c) barrier.
d) block.

7) _____ensures that every message sent to a group of receivers will be delivered to either all of them or none of them.

a) Ordered delivery
b) Atomicity
c) Survivability
d) Reliability

8) _____ensures that if a transaction's work is interrupted by a failure, any partially completed results

a) atomocity
b) failure atomocity
c) consurrecny
d) consistency

9) _____involves communication between domains on the same machine.

a) Cross-machine
b) Cross-domain
c) Single-machine
d) Single-domain

10) _____is a connection establishment between a client and a server.

a) message passing
b) binding
c) message passing
d) buffering

11) _____is a group of users or machine.

a) cell.
b) cluster.
c) cloud.
d) DCE.

12) _____is an unstructured sequence of data.

a) file.
b) record.
c) table.
d) tuple.

13) _____is the ability of a system to continue functioning in the event of partial system failure.

a) fault avoidance
b) fault tolerance
c) fault detection
d) fault recovery

14) _____is the relocation of a process from its current location to another node.

a) process allocation
b) process migration
c) threads
d) process association

15) _____is the state of permanent blocking of a set of processes each of which is waiting for an event that only another process is in the set can cause.

a) Running
b) Wait
c) Blocked
d) Deadlock

16) _____is useful for identifying lost messages and duplicate messages in case of system failures

a) sequence number
b) acknowledgement
c) destination address
d) data size

17) _____operation is not possible in an immutable file.

a) insertion.
b) deletion.
c) updation.
d) selection.

18) _____process involves encoding and decoding of message data between two computers.

a) marshaling
b) encrypting
c) decrypting
d) unmarshaling

19) _____refers to the block size of a DSM system.

a) cohesion
b) thrashing
c) heterogeneity
d) granularity

20) _____refers to the capability of a system to adapt to increased service load.

a) performance.
b) scalability.
c) flexibility.
d) reliability.

21) _____servers are useful for improving the overall performance and reliability of the system.

a) persistent servers
b) instance per session servers
c) instance per call servers
d) instance servers

22) _____servers exist for the entire session.

a) instance per session servers
b) persistent servers
c) instance per call servers
d) instance servers

23) _____time is defined as the time period for which the execution of the process is stopped for transferring its information to the destination node.

a) turn around
b) latency
c) freezing
d) execution

24) _____transparency deals with masking from the user's partial failures in the system.

a) location
b) access
c) replication
d) failure

25) _____transparency means that the semantics of a RPC are identical to those of a local procedure call.

a) Syntactic
b) Semantic
c) Location
d) Name

26) _____refers to the block size of a DSM system.

a) Granularity
b) Thrashing
c) Replacement Strategy
d) Memory Coherence

27) _____refers to the power to survive crashes of the devices.

a) availability.
b) granurality.
c) throughput.
d) robustness.

28) _____is a problem that occurs when data block moves from one node to another.

a) replacement.
b) replication.
c) granularity.
d) thrashing.

29) _____is a special type of message that entities it's holder to enter critical section

a) entity.
b) packet.
c) token.
d) frame.

30) _____is the process of converting the program object of a message to stream for suitable for transmission.

a) decoding.
b) conversion.
c) encoding.
d) enriching.

31) _____ensures that once transaction completes successfully, the results of the operations become permanent.

a) serializability.
b) synchronizability.
c) atomicity.
d) durability.

32) _____refers to the fact that the name of a resource should not reveal any hint as to the physical location of the resource.

a) name transparency
b) replication transparency
c) failure transparency
d) migration transparency

33) _____refers to the unit of sharing and data transfer.

a) throughput.
b) bytes.
c) block.
d) granularity.

34) ._____procedure calls are more vulnerable to failure than local procedure calls.

a) remote
b) called
c) calling
d) none of the above

35) A barrier defines the_____of execution of a group of concurrently executing processes.

a) beginning of a phase
b) middle of a phase
c) end of a phase
d) full execution phase

36) A binary semaphore_____.

a) has the values one or zero.
b) is essential to binary computers.
c) is used only for synchronisation.
d) is used only for mutual exclusion

37) A binding agent is basically a_____server used to bind a client to a server by providing the client with the location information of the desired server.

a) name
b) file
c) database
d) print

38) A major disadvantage of the nonreplication strategies is_____.

a) lack of distribution
b) lack of parallelism
c) lack of memory
d) lack of information

39) A process that is based on IPC mechanism which executes on different systems and can communicate with other processes using message based communication, is called_____.

a) local Procedure Call.
b) inter Process Communication.
c) remote Procedure Call.
d) remote Machine Invocation.

40) A server program that implements procedures in an interface is said to_____the interface.

a) extract
b) export
c) import
d) None of the above.

41) A set of resources allocations such that the system can allocate resources to each process in some order, and still avoid a deadlock is called _____.

a) unsafe state.
b) safe state.
c) starvation.
d) greedy allocation.

42) A system is said to be in _____ if it is not in a deadlock state.

a) safe state.
b) unsafe state.
c) stateful.
d) stateless.

43) A_____and_____are the two parts of an interface name.

a) class and object
b) member variable and member function
c) method and instance
d) type and instance

44) A_____is a mechanical or algorithmic defect that may generate an error.

a) bug
b) error
c) system overflow
d) fault

45) A_____is a special type of message that entitles its holder to enter a critical section.

a) block
b) bit
c) token
d) byte

46) A_____is a subsystem of an operating system that performs file management activities.

a) file system
b) process management system
c) memory management system
d) interprocess communication system

47) A_____is a mechanical or algorithmic defect that may generate an error.

a) fault
b) bug
c) failure
d) error

48) All accesses to acquire and release synchronization variables obey _____semantics.

a) strict consistency
b) processor consistency
c) release consistency
d) PRAM consistency

49) All or none operation execution is also called as _____.

a) atomic transaction.
b) fault tolerant system.
c) successful transaction.
d) reliable transaction.

50) Amoeba is a_____based distributed operating system.

a) micro computer.
b) monolithic.
c) micro kernel.
d) workstation.

51) Amoeba is an _____system in which the entire software is structured as objects.

a) object-based
b) operational-based
c) relational-based
d) object-oriented relational based

52) Amoeba system follows approach.

a) distributed.
b) object oriented.
c) centralized.
d) parallel.

53) An RPC that uses the R protocol is called _____.

a) synchronous RPC
b) asynchronous RPC
c) reliable RPC
d) unreliable RPC

54) An_____call is one whose parent has expired due to a node crash.

a) orphan
b) local procedure
c) remote procedure
d) possibly call

55) applications

a) granularity
b) consistency
c) ISO reference
d) Process

56) Bullet server in amoeba system is used for_____.

a) database management.
b) process management.
c) file management.
d) directory management

57) chain.

a) Mutual exclusion
b) Hold-and-wait
c) No-preemption
d) Circular-wait

58) CPU Scheduling is the basis of _____operating system

a) batch.
b) real time
c) multiprogramming
d) monoprogramming

59) Deadlock can be modeled using_____.

a) directed graph
b) undirected graph
c) undirected acyclic graph
d) directed acyclic graph

60) DSM system used a special variable called a_____variable.

a) system
b) environment
c) synchronization
d) private

61) Failure during inter-process communication may be due to_____.

a) loss of request message
b) loss of response message
c) unsuccessful execution of the request
d) All of the above

62) First in first out is_____based algorithm.

a) fixed space.
b) variable space.
c) usage based.
d) non usage based.

63) Idempotency basically means_____.

a) reliability
b) repeatability
c) survivability
d) flexibility

64) Implementation of_____consistency model requires the existence of an absolute global time so that memory read/write operations can be correctly ordered.

a) strict
b) sequential
c) casual
d) weak

65) In _____ case of failure, the system continues to function but produces wrong results.

a) fail-stop
b) byzantine
c) system
d) none of the above

66) In _____condition, processes are allowed to request for new resources without releasing the resources that they are currently holding.

a) Mutual-exclusion
b) Hold-and-wait
c) No-preemption
d) Circular-wait

67) In _____communication, message transfers simply fail whenever there is no more buffer space.

a) successful
b) unsuccessful
c) flow-controlled
d) flow uncontrolled

68) In a distributed transaction service,_____is responsible for deciding whether the transaction should be aborted or committed.

a) client
b) node
c) host
d) coordinator

69) In a RPC, the caller is a_____.

a) server process.
b) client process.
c) stub.
d) runtime routine.

70) In an object-based system that uses the RPC mechanism for object invocation, the call-by-reference semantics is known as call-by-_____.

a) visit
b) object-reference
c) value
d) move

71) In broadcasting method, each node maintains_____table that contains an entry for each block for which the node is the current owner.

a) Lookup table
b) Truth table
c) Routing table
d) Owned blocks table

72) In inter-process communication,_____is strongly related to synchronization strategy.

a) message buffering
b) process addressing
c) failure handling
d) none of the above.

73) In one of the deadlock prevention methods, impose a total ordering of all resource types, and require that each process requests resources in an increasing order of enumeration. This voilates the condition of deadlock

a) mutual exclusion.
b) hold and Wait.
c) circular Wait.
d) no Preemption.

74) In the running state_____.

a) only the process which has control of the processor is found.
b) all the processes waiting for I/O to be completed are found.
c) all the processes waiting for the processor are found.
d) none of the above.

75) In the_____method, all parameters are copied into a message that is transmitted from the client to the server through the intervening network.

a) call-by-value
b) call-by-reference
c) call-by-visit
d) call-by-move

76) In which method, a client is bound to server at the time when it calls the server for the first time during execution.

a) binding at compile time
b) binding at link time
c) binding at call time
d) none of the above

77) In which scheme, all copies of a piece of data except one are invalidated before a write can be performed on it.

a) write-update
b) write-validate
c) write-invalidate
d) read-update

78) In which type of protocol, only one message per call is transmitted from client to server?

a) The Request Protocol
b) The Request/Reply Protocol
c) The Request/Reply/Acknowledgement Protocol
d) The Request/Reply/Acknowledgement-Reply Protocol

79) In_____ kernel model, the operating system services such as process management, memory management are provided by the kernel.

a) monolithic
b) micro
c) macro
d) complex

80) In_____ representation, the type of each program object along with its value is encoded in the message.

a) tagged
b) untagged
c) sparse
d) sequential

81) In_____scheme, a write operation is carried out by updating all copies of the data on which the write is performed.

a) write-update
b) write-validate
c) write-invalidate
d) write-nonupdate

82) Isolation property is also known as _____.

a) performance.
b) serializability.
c) durability.
d) atomicity.

83) Last-one semantics can be easily achieved when only_____processors are involved in RPC

a) one
b) two
c) three
d) four

84) Least recently used is a_____based algorithm.

a) fixed space.
b) variable space.
c) usage based.
d) non usage based.

85) LRPC achieves a_____performance improvement over traditional approaches.

a) factor-of-one
b) factor-of-two
c) factor-of-three
d) factor-of-four

86) Maintaining separate life times for client and server processes is called as _____.

a) independence
b) dependence
c) parallelism
d) sequential

87) Messages smaller than the MTU of the network can be sent in a single packet and are known as_____.

a) maximum transfer unit
b) single-datagram messages
c) multidatagram messages
d) message passing

88) MUNIN system follows _____consistency model.

a) release.
b) weak.
c) PRAM.
d) strict.

89) Overwriting operation is not possible in a_____.

a) mutable file.
b) immutable file.
c) sequential file.
d) index sequential file.

90) peripherals.

a) parallel processing
b) distributed computing
c) super computer
d) multiprocessing

91) Processor pool model is followed by_____ .

a) Amoeba.
b) V system.
c) mach.
d) chorus.

92) program operation is to be correct.

a) mutual-exclusion
b) no-starvation
c) no-deadlock
d) event-ordering

93) Prolonged waiting for resources lead to_____.

a) starvation.
b) exclusion.
c) waiting.
d) critical section.

94) Random replacement is_____based algorithm.

a) fixed space.
b) variable space.
c) usage based.
d) non usage based.

95) released by the process holding it.

a) Mutual exclusion
b) Hold-and-wait
c) No-preemption
d) Circular-wait

96) Saving the state of the old process and loading the saved state of the new process is called _____.

a) context Switch.
b) state.
c) multi programming.
d) none of the above.

97) Sending information to all the nodes connected in the network is called _____.

a) broadcasting.
b) multicasting.
c) polling.
d) piggybacking.

98) Super computers typically employ_____.

a) real time operating system.
b) multiprocessors OS.
c) desktop OS.
d) none of the above.

99) The _____handles transmission of messages across the network between client and server machines.

a) client
b) client stub
c) RPCRuntime
d) server stub

100) The aim of transparency is to allow the system to expand in scale without disrupting the activities of the users.

a) performance
b) scaling
c) concurrency
d) migration

101) The aim of transparency is to ensure that the movement of the object is handled automatically by the system in a user-transparent manner.

a) location
b) name
c) migration
d) scaling

102) The collection of processes on the disk that is waiting to be brought into memory for execution forms the

a) ready queue.
b) device queue.
c) input queue.
d) priority queue.

103) The Hardware mechanism that enables a device to notify the CPU is called_____.

a) polling.
b) interrupt.
c) system Call.
d) none of the above.

104) The high paging activity is called_____.

a) inter process communication.
b) thrashing
c) context Switch.
d) none of the above.

105) The implementation of_____semantics with RR protocol requires the server to maintain a record of the replies in its reply cache.

a) last-of-many call
b) at-least-once call
c) exactly-once call
d) last-one call

106) The kernel keeps track of the state of each task by using a data structure called _____.

a) process control block.
b) user control block.
c) memory control block.
d) none of the above.

107) The kernel of the operating system remains in the primary memory because _____.

a) it is mostly called (used).
b) it manages all interrupt calls.
c) it controls all operations in process.
d) it is low level.

108) The main goal of the_____model is to keep the kernel as small as possible.

a) macrokernel
b) microkernel
c) monolithic kernel
d) none of the above.

109) The mechanism used in Amoeba for locating a server is based on _____.

a) broadcast queries
b) unicast queries
c) multicast queries
d) range queries

110) The operating system manages _____.

a) memory.
b) processor.
c) disk and I/O devices.
d) all of the above.

111) The operating system of a computer serves as a software interface between the user and the _____.

a) hardware.
b) peripheral.
c) memory.
d) screen.

112) The probe-based distributed deadlock detection algorithm was proposed by_____.

a) Chandy et al.
b) Silberschatz and Galvin
c) Gray et al.
d) Rosenkratz et al.

113) The process by which a client becomes associated with a server so that calls can take place is known as _____.

a) abstraction
b) binding
c) linking
d) loading

114) The process related to process control, file management, device management, information about system and communication that is requested by any higher level language can be performed by_____.

a) editors.
b) compilers.
c) system Call.
d) caching.

115) The process related to process control, file management, device management, information about system and communication that is requested by any higher level language can be performed by _____.

a) editors.
b) compilers.
c) system Call.
d) caching.

116) The processor consistency model was proposed by_____.

a) Goodman
b) Sandberg
c) Dubois
d) Lamport

117) The Purpose of Co-operating Process is _____.

a) information Sharing.
b) convenience.
c) computation Speed-Up.
d) all of the above.

118) The section of the program that need exclusive access to shared resources are referred to as _____.

a) program section.
b) execution section.
c) locked section.
d) critical section.

119) The shared-memory space of Munin is structured as a collection of_____.

a) private variables
b) protected variables
c) shared variables
d) environment variables

120) The simplest approach for concurrency control would be to allow the transactions to be run _____.

a) one at a time
b) two at a time
c) three at a time
d) many at a time

121) The technique, for sharing the time of a computer among several jobs, which switches jobs so rapidly such that each job appears to have the computer to itself, is called _____.

a) time Sharing.
b) time out.
c) time domain.
d) multitasking.

122) The value of the parameter is passed in _____method.

a) call by visit.
b) call by move.
c) call by value.
d) call by reference.

123) The_____is a user process that initiates a remote procedure call.

a) client
b) server
c) network
d) operating system

124) To achieve the goal of semantic transparency, RPC implementation uses the concept of _____.

a) stubs
b) tables
c) queries
d) data stream

125) Tuple means_____.

a) record.
b) table.
c) database.
d) values.

126) value written by the most recent write operation to that address.

a) Sequential
b) Strict
c) Casual
d) Processor

127) Virtual memory is_____ .

a) an extremely large main memory.
b) an extremely large secondary memory.
c) an illusion of extremely large main memory.
d) a type of memory used in super computers.

128) Which approach is very expensive?

a) write-update.
b) write-invalidate.
c) write-validate.
d) write-write.

129) Which is not the factor influencing block size?

a) paging overhead
b) false sharing
c) thrashing
d) deadlock

130) Which is not the layer of the Operating system?

a) Kernel.
b) Shell.
c) Application program.
d) Critical Section.

131) Which is not the state of the process? A. Blocked.

a) Running.
b) Ready.
c) Privileged.

132) Which method is also called as indirect call method?

a) binding at compile time
b) binding at link time
c) binding at call time
d) none of the above

133) Which of the following approach depend on the history of the serviced request?

a) stateless server
b) stateful server
c) pool of server
d) None of the above

134) Which of the following block will be first replaced?.

a) read only.
b) read owned.
c) nil block.
d) writable.

135) Which of the following block will be first replaced?.

a) read owned.
b) writable.
c) unused.
d) read only.

136) Which of the following buffering strategies are used in interprocess communication?

a) null buffer
b) single message buffer
c) multiple message buffer
d) all of the above

137) Which of the following call reduce thrashing?.

a) locking data.
b) interleaving data access.
c) making all the data read only.
d) moving data blocks.

138) Which of the following condition is not necessary for a deadlock situation to occur in a system?

a) Mutual-exclusion
b) Semaphore
c) Hold-and-wait
d) No-preemption

139) Which of the following consistency model provides a mechanism to clearly tell the system whether a process is entering a critical section or exiting from the critical section.

a) Strict Consistency Model
b) Sequential Consistency Model
c) Release Consistency Model
d) Processor Consistency Model

140) Which of the following events interrupt the communication between two processes, resulting in the loss of message?

a) node crash
b) communication link failure
c) stack overflow
d) Both A and B

141) Which of the following is a solution to the address memory access latency?

a) Data Caching
b) Data Binding
c) Dynamic Binding
d) Data Sharing

142) Which of the following is crucial time while accessing data on the disk?

a) Seek time.
b) Rotational time.
c) Transmission time.
d) Waiting time.

143) Which of the following is the central issue in the communication structure?

a) mutual exclusion
b) semaphore
c) synchronization
d) failure handline

144) Which of the following is the weakest call semantic used in RPC?

a) may-be call semantics
b) last-one call semantics
c) lost-of-many call semantics
d) at-least-once call semantics

145) Which of the following property is also known as durability property?

a) atomicity
b) serializability
c) performance
d) none of the above

146) Which of the following protocol is not a communication protocol?

a) R Protocol
b) RR Protocol
c) RRA Protocol
d) TCP/IP Protocol

147) Which of the following server is not a type of server of Amoeba system?

a) Bullet server
b) Directory server
c) Replication server
d) File server

148) Which of the following strategy for implementing a sequentially consistent DSM system?

a) Nonreplicated, nonmigrating blocks
b) Nonreplicated, migrating blocks
c) Replicated, migrating blocks
d) Replicated, nonmigrating blocks

149) Which technique was introduced because a single job could not keep both the CPU and the I/O devices busy?

a) Time-sharing.
b) SPOOLing.
c) Preemptive scheduling.
d) Multiprogramming

150) Who is called a supervisor of computer acitvity?

a) CPU.
b) operating system.
c) control unit.
d) application Program.

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