These are sample MCQs to indicate pattern, may or may not appear in examination

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Program: BE Computer Engineering

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Course Code: CSC802 and Course Name: Distributed Computing

Time: 1hour Max. Marks: 50

Note to the students:- All the Questions carry equal marks .

Q	Network operating system runs on _____
A	Server
B	Client
C	Every system in the network
D	Network Agent
Q	The capability of a system to adapt the increased service load is called _____
A	tolerance
B	capacity
C	scalability
D	heterogeneity
Q	What are the characteristics of processor in distributed system?
A	They are same in size
B	They are manufactured with single purpose
C	They vary in size and function
D	They are same in function
Q	What is not a major goal for building distributed systems?
A	Resource sharing

B	Computation speedup
C	Reliability
D	Simplicity
	What are characteristic of Network
Q	Operating Systems?
A	Users are aware of multiplicity of machines
B	They are transparent
C	They are coherent
D	Users are unaware of multiplicity of machines
	_____hides differences in data representation and the way an object can
Q	be accessed
A	Location transparency
B	Access transparency
C	Migration transparency
D	Replication transparency
	_____enables users and application programs to complete their tasks despite the failure of hardware or software
Q	components
A	Concurrency transparency
B	Failure transparency
C	Replication transparency
D	Migration transparency
	In distributed systems, _____ offers services according to standard rules that describe the syntax and semantics of those
Q	services.
A	openness
B	scalability
C	Reliability
D	fault tolerance

Q	In_____computing, underlying hardware consists of a collection of similar workstations or PCs closely connected by means of a high-speed local-area network and each node runs the same operating system.
A	mobile computing
B	cloud computing
C	cluster computing
D	Peer-to-peer computing
Q	In distributed information systems _____ is responssible for executing several transactions concurrently over the network without any conflict.
A	Enterprise application integration
B	Transaction processing system
C	Computational Grid
D	Collaborative Grid
Q	Basis for communication in middleware based operating system is_____.
A	Files
B	Model specific
C	Messages
D	Shared memory
Q	What do you mean by RPC?
A	Relay Procedure call
B	Remote Process Call
C	Remote Procedure call
D	Remote Process Cell
Q	An RPC (remote procedure call) is initiated by the _____.
A	server

B	client
C	client after the sever
D	a third party
	A remote procedure call is _____.
Q	
A	a single process
B	a single thread
C	a single stream
D	inter-process communication
Q	RPC is a _____.
A	synchronous operation
B	asynchronous operation
C	time independent operation
D	channel specific operation
	The remote method invocation [RMI]
Q	_____.
	allows a process to invoke memory on a
A	remote object
	allows a thread to invoke a remote object
B	
	allows a thread to invoke memory on a
C	remote object
	allows a process to invoke a method on a
D	remote object
	_____ primitive associates a local
	address with the newly-created socket.
Q	
A	Bind
B	Listen
C	Send
D	close
Q	OSI has ___ layers.
A	4
B	5

C	6
D	7
	Choosing the best path from sender to receiver is primary task of ___ layer of OSI.
Q	
A	Physical
B	Transport
C	Network
D	Application
	In RPC, while a server is processing the call,
Q	the client is blocked ____.
	unless the client sends an asynchronous
A	request to the server
B	unless the call processing is complete
	for the complete duration of the
C	connection
D	unless the server is disconnected
	RPC allows a computer program to cause a subroutine to execute in _____.
Q	
A	its own address space
B	another address space
	both its own address space and another
C	address space
D	applications address space
	The local operating system on the server machine passes the incoming packets to
Q	the _____.
A	server stub
B	client stub
C	client operating system
D	client process

	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 _____.
Q	
A	Local Procedure Call
B	Inter Process Communication
C	Remote Procedure Call
D	Remote Machine Invocation
	Machine that places the request to access the data is generally called as _____.
Q	
A	Server Machine
B	Client Machine
C	Request Machine
D	Response Machine
Q	In a distributed system, information is exchanged through _____.
A	Memory sharing
B	Message passing
C	Email sending
D	Network sharing
	RPC works between two processes. These processes must be _____.
Q	
A	Only on the same computer
B	Only on different computers connected with a network
C	on the same computer and also on different computers connected with a network
D	on none of the computers
Q	RPC is used to _____.

A	establish a server on remote machine that can respond to queries
B	retrieve information by calling a query
C	establish a connection to server on remote machine that can respond to queries and retrieve information by calling a query
D	invoke the method on remote object
Q	In which OSI layer encryption and decryption happens ?
A	Application
B	Presentation
C	Transport
D	Data Link
Q	_____ provides programmers a familiar programming model by extending the local procedure call to a distributed environment.
A	Distributed environment
B	Permanent procedure call
C	Process and file
D	Remote procedure call
Q	Message passing provides a mechanism to allow processes to communicate and to synchronize their actions _____.
A	By sharing the same address space
B	without sharing the same address space
C	by sharing the same process number and Process Identifier
D	By sharing network
Q	Which of the below element is usually not there in the header?
A	Sequence number

B	Structural information
C	Address
D	File mode(Read/ Write)
	Two clocks are said to be synchronized at a particular instance of time if the difference in time values of the two clocks is less than some specified constant. The difference in time values of two clocks is called _____
Q	
	Clock Frequency
A	
	Clock drift
B	
	Clock skew
C	
D	Clock Ticks
	What is common problem found in
Q	distributed system ?
	Process Synchronization
A	
	Communication synchronization
B	
	Deadlock problem
C	
D	Power failure
	If timestamps of two events are same,
Q	then the events are ____
	concurrent
A	
	non-concurrent
B	
	monotonic
C	

D	non-monotonic
Q	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	two more process can execute in its critical section
Q	A process can enter into its critical section _____
A	anytime
B	when it receives a reply message from its parent process
C	when it receives a reply message from all other processes in the system
D	when it receives a reply message from its child process
Q	For proper synchronization in distributed systems _____
A	prevention from the deadlock is must

	prevention from the starvation is must
B	
	prevention from the deadlock & starvation is must
C	
	prevention from deadlock is not necessary
D	
Q	In the token passing approach of distributed systems, processes are organized in a ring structure _____ logically
A	
	physically
B	
	both logically and physically
C	
D	Conceptually
Q	In case of failure, a new transaction coordinator can be elected by _____ Cristian's Algorithm
A	
	Bully algorithm
B	
	Both bully and Cristian's algorithm
C	
D	Lamport Algorithm
Q	In distributed systems, election algorithms assumes that _____ a unique priority number is associated with each active process in system
A	

	there is no priority number associated with any process
B	
	priority of the processes is not required
C	
	same priority number is associated to two
D	process at a time
	According to the ring algorithm, links
Q	between processes are _____
	Bidirectional
A	
	Unidirectional
B	
	Both bidirectional and unidirectional
C	
D	omnidirectional
	What are the characteristics of mutual exclusion using centralized approach ? i. One processor as coordinator which handles all requests ii. It requires request,reply and release per critical section entry iii.The method is free from starvation.
Q	
A	i
B	ii
	iii
C	
D	i,ii and iii

Q	What are the characteristics of fully distributed approach ? I. When responses are received from all processes, then process can enter its Critical Section II. When process exits its critical section, the process sends reply messages to all its deferred requests. III. It requires request, reply and release per critical section entry IV. One processor as coordinator which handles all requests
A	I
B	I and III
C	III and IV
D	I and II
Q	Single coordinator approach has the following disadvantages : i.Simple implementation, ii.Simple deadlock handling, iii.Bottleneck
A	i
B	ii
C	ii and iii
D	iii
Q	Which are the two complementary deadlock-prevention schemes using time stamps ?
A	The wait-die & wound-wait scheme
B	The wait-n-watch scheme

	The wound-wait scheme
C	
	The wait-wound & wound-wait scheme
D	
Q	If an old process wants a resource held by a young process, the old one will wait happens in _____
	Wait-die
A	
	Wound-wait
B	
	Both
C	
D	wait-wound-wait
Q	In wound-wait If a young process wants a resource held by an old process, the young process will _____
	Killed
A	
	Wait
B	
	Preempt
C	
D	Restarts and wait
Q	A bully election algorithm: picks the first process to respond to an election request.
A	
	relies on majority vote to pick the winning process.
B	

	assigns the role of coordinator to the processs holding the token at the time of election.
C	
D	picks the process with the largest ID.
Q	Which mutual exclusion algorithm works when the membership of the group is unknown?
	Centralized.
A	
	Ricart-Agrawala.
B	
	Lamport.
C	
D	Token Ring.
Q	Which set of events is concurrent (all events are concurrent with each other)?
	(3, 1, 5, 7), (3, 2, 6, 7), (2, 1, 6, 8)
A	
	(2, 1, 3, 4), (2, 2, 3, 3), (3, 3, 2, 5)
B	
	(1, 2, 3, 4), (2, 3, 4, 5), (3, 4, 5, 6)
C	
D	(1, 5, 6, 7), (1, 4, 5, 7), (1, 3, 2, 2)
Q	Which is not the way to organize servers?
A	Iterative server
B	Concurrent server
C	Active server
D	Multi-threaded serve
Q	Logical extension of computation migration is _____

A	system migration
B	process migration
C	thread migration
D	data migration
Q	The following is the desirable feature of global scheduling algorithm:
A	Dynamic in nature
B	Static by nature
C	Cannot assure about actual nature
D	Fix in nature
Q	Compared to single sharing system, the distribute system has higher_____and _____
A	noise and irrelevance
B	reliability and availability
C	bottleneck and single point of failure
D	noise and bottleneck
Q	_____determines when it will be necessary to transfer the process from one node to another.
A	Selection policy
B	Transfer policy
C	Location policy
D	Security policy
Q	Load balancing is the way of distributing _____across a set of processors, which is connected to a_____.
A	Load units, network
B	Task, network
C	Process, LAN
D	Task, LAN

Q	Which technique is not used for scheduling processes of a distributed system?
A	Task assignment approach
B	Load balancing approach
C	Load dividing approach
D	Load sharing approach

Q	In _____approach, each process submitted by the user for processing is viewed as a collection of related tasks and these task are scheduled to suitable nodes in order to improve the performance.
A	Task assignment approach
B	Load balancing approach
C	Load dividing approach
D	Load sharing approach

Q	_____represents solution to the static scheduling problem that requires a reasonable amount of time and other resources to perform its function.
A	Approximate solution
B	Heuristics solution
C	Optimal solution
D	Suboptimal solution

Q	_____algorithm uses the information about properties of the node and characteristics of processes.
A	probabilistic algorithm
B	Heuristics solution
C	deterministic algorithm
D	Optimal solution

Q	A request, at the risk of server never execution is _____.
A	Never Reissue
B	Always Reissue
C	Reissue a request on acknoledgment
D	Reissue a request on no acknoledgment
Q	A request, at the risk of server duplicating execution is _____.
A	Never Reissue
B	Always Reissue
C	Reissue a request on acknoledgment
D	Reissue a request on no acknoledgment
Q	If a server was executing along running RPC computation and during the execution it comes to know that a clent has crashed then such calls are called as_____.
A	Duplicate call
B	Extra call
C	Orphan RPC call
D	Orphan RMI call
Q	Communication layer is forced to deliver incoming messages from the same process in the same order as they have sent is called as_____.
A	Unoredered multicast
B	FIFO ordered multicast
C	Casually ordered multicast
D	Totally ordered multicasts
Q	When potential causality exists between different messages is preserved in_____.
A	Unoredered multicast

B	FIFO ordered multicast
C	Casually ordered multicast
D	Totally ordered multicasts
Q	Various Components of distributed systems are_____.
A	client
B	server
C	server network links
D	client,server, network links
Q	The degree of tolerance of update dependancy and state read is defined as_____.
A	Concurrency
B	Consistency
C	Availability
D	Isolation
Q	The degree at which the conflicting read/write access is tolerated is defined as_____.
A	Concurrency
B	Consistency
C	Availability
D	Isolation
Q	The method and time to access data and replica is defined as_____.
A	Concurrency
B	Consistency
C	Availability
D	Isolation
Q	The time in which the remote updating is reflected locally is called as _____.
A	Concurrency
B	Consistency

C	Availability
D	Isolation
Q	Presenting a singular, globalview, even while local changes are applied to the replicated data is defined as_____.
A	Concurrency
B	Consistency
C	Availability
D	Visibility
Q	The variable that assures local copies are consistent with remote ones is_____.
A	Release
B	Acquire
C	Read
D	Write
Q	The variable that assures updates to a datastore are propagated to all local copies is _____.
A	Release
B	Acquire
C	Read
D	Write
Q	Replication model in which one copy is master and other copies are slaves is _____.
A	Master-Slave
B	Client -Server
C	Peer-to-peer
D	Permanent
Q	Replication model in which one replica is server replica and other follow the sever is_____.

A	Master-Slave
B	Client -Server
C	Peer-to-peer
D	Permanent
Q	Replication model in which no master replica or slave replica is_____.
A	Master-Slave
B	Client -Server
C	Peer-to-peer
D	Permanent
Q	The use of more information gives rise to_____.
A	Information redundancy
B	Time redundancy
C	Physical redundancy
D	Data Redundancy
Q	An additional time that is used to deliver the service of a system or multiple executions of an operation is _____.
A	Information redundancy
B	Time redundancy
C	Physical redundancy
D	Data Redundancy
Q	Using extra equipments or processed either in hardware or software is_____.
A	Information redundancy
B	Time redundancy
C	Physical redundancy
D	Data Redundancy
Q	Agreement algorithms have which assumptions_____.

A	Synchronous
B	Communication delay is bounded or not
C	Message delivery is ordered or not
D	Asynchronous
Q	_____ in NFS involves the parsing of a path name into separate directory entries – or components.
A	Path parse
B	Path name parse
C	Path name translation
D	Path name parsing
Q	When a client has a cascading mount _____ server(s) is/are involved in a path name traversal.
A	at least one
B	more than one
C	more than two
D	more than three
Q	Which file is a sequence of bytes organized into blocks understandable by the system's linker?
A	object file
B	source file
C	executable file
D	text file
Q	What is the mounting of file system?
A	crating of a filesystem
B	deleting a filesystem
C	attaching portion of the file system into a directory structure
D	removing the portion of the file system into a directory structure
Q	Mapping of file is managed by _____

A	file metadata
B	page table
C	virtual memory
D	file system
	Mapping of network file system protocol to local file system is done by
Q	_____
A	network file system
B	local file system
C	volume manager
D	remote mirror
	Which one of the following explains the
Q	sequential file access method?
	random access according to the given byte
A	number
B	read bytes one at a time, in order
C	read/write sequentially by record
D	read/write randomly by record
	When will file system fragmentation
Q	occur?
	unused space or single file are not
A	contiguous
B	used space is not contiguous
C	unused space is non-contiguous
D	multiple files are non-contiguous
	Which one of the following is a distributed
Q	file system?
A	andrew file system
B	server file system
C	newer network
D	dc file system
	To organise file systems on disk
Q	_____

A	they are split into one or more partitions
B	information about files is added to each partition
C	they are made on different storage spaces
D	they are made on same storage spaces
Q	The directory can be viewed as a _____ that translates file names into their directory entries.
A	symbol table
B	partition
C	swap space
D	cache
Q	What are the characteristics of a distributed file system?
A	Its users, servers and storage devices are dispersed
B	Service activity is not carried out across the network
C	They have single centralized data repository
D	There are multiple dependent storage devices
Q	What is not a major reason for building distributed systems?
A	Resource sharing
B	Computation speedup
C	Reliability
D	Simplicity
Q	What will happen in the single level directory?

A	All files are contained in different directories all at the same level
B	All files are contained in the same directory
C	Depends on the operating system
D	Depends on hardare
Q	When a user refers to a particular file?
A	system MFD is searched
B	his own UFD is not searched
C	both MFD and UFD are searched
D	every directory is searched
Q	What is the disadvantage of the two level directory structure?
A	it does not solve the name collision problem
B	it solves the name collision problem
C	it does not isolate users from one another
D	it isolates users from one another
Q	In the tree structured directories _____
A	the tree has the stem directory
B	the tree has the leaf directory
C	the tree has the root directory
D	the tree has no any directory
Q	The current directory contains, most of the files that are _____
A	of current interest to the user
B	stored currently in the system
C	not used in the system
D	not of current interest to the system
Q	Which of the following are the types of Path names?

A	absolute & relative
B	local & global
C	global & relative
D	relative & local
Q	Which of the following is not a protocol defined by X.500?
A	DAP (Directory Access Protocol)
B	DSP (Directory System Protocol)
C	DISP (Directory Information Shadowing Protocol)
D	DGP (Directory Gateway Protocol)