UNIVERSITY OF MUMBAI
MCQ QUESTION BANK (100 Questions)

Course Code and Name:CSC802 (Distributed Computing)

Class:BE   **Department :COMPUTER**

Semester:VIII

Module No	Weighatge in Hrs	Q NO	QUESTION (2 marks per question)	OPTIONS A	B	C	D	Correct Answer
1	6	1	A distributed system is defined as a collection of autonomous computers linked by a network with software designed to produce an integrated computing facility.	TRUE	FALSE			TRUE
		2	A "glue" between client and server parts of application	Middleware	Firmware	Package	System Software	Middleware
		3	The hardware of DS has two types	multiprocessor system,multicomputer system	multiprocessor system,unicomputer system	uniprocessor system,multicomputer system	uniprocessor system,unicomputer system	multiprocessor system,multicomputer system
		4	Channel omission failure is	loss of messages occurs between the sending process and the outgoing message buffer.	loss of messages occurs between the incoming message buffer and the receiving process.	loss of messages occurs between the incoming buffer and the outgoing buffer	loss of messages occurs between the incoming buffer and the system.	loss of messages occurs between the incoming buffer and the outgoing buffer
		5	Process Fail - Stop in process omission faults	Can be detected in synchronous system.	Can be detected in asynchronous system.	Can be detected in synchronous and asynchronous system.	Can be detected in standalone system.	Can be detected in synchronous system.
		6	Distributed pervasive system is also known as	Ubiquitous computing	User Interface design	Graphical User interface	peer to peer system	Ubiquitous computing
		7	Two forms of distributed information systems are:	Transaction Processing System and Enterprise Application Integration.	Transaction Product System and Enterprise Application Interrogation.	Transparency Processing System and Independent Application Integration.	Transaction Processing Software and Enterprise Access Integration.	Transaction Processing System and Enterprise Application Integration.
		8	Type of cluster computing is	Load sharing cluster	Load holding cluster	Load replication cluster	Load balancing cluster	Load balancing cluster
		9	Type of grid computing is	Collaborative Grid	System Grid	Process Grid	Channel grid	Collaborative Grid
		10	Scaling transparency hides	System expansion	System collaboration	System failure	System security	System expansion

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2	10	1	Internet provides _____ for remote login.	telnet	http	ftp	RPC	telnet
		2	The header usually consists of the following elements in IPC I. Sequence number II. Structural information III. Address IV. File mode(Read/ Write)	I,III, IV	I,II, III	I, II, IV	I,IV	I,II, III
		3	In RMI, the objects are passed by _____.	Value	Reference	Value and Reference	object	Value
		4	What are the exceptions which have to be handled in a RMI client program?	MalFormedURLException	NotFoundException	ArithmeticException	Class-Not-Found-Exception	MalFormedURLException
		5	Transient communication done by_____ layer	Network	Transport	Physical	Session	Transport
		6	The local operating system on the server machine passes the incoming packets to the _____	server stub	client stub	client operating system	Binding agent	server stub
		7	Machine that places the request to access the data is generally called as _____	Server Machine	Client Machine	Request Machine	Database server	Client Machine

Q NO	QUESTION	A	B	C	D	Correct Answer
8	_____ provides programmers a familiar programming model by extending the local procedure call to a distributed environment	Distributed environment	Permanent procedure call	Process and file	Remote procedure call	Remote procedure call
9	An architecture where clients first communicate the server for data then format and display it to the users, is known as	Client/Server architecture	Three-tier architecture	Two-tier architecture	Peer-to-Peer architecture	Client/Server architecture
10	_____ is an object acting as a gateway for the client side.	skeleton	stub	remote	server	stub
11	Message passing provides a mechanism to allow processes to communicate and to synchronize their actions	By sharing the same address space	without sharing the same address space	by sharing the same process number and Process Identifier	By sharing port number	By sharing the same address space
12	Which of the following allocates/deallocates buffers	RRL	Stub/skeleton layer	Transport layer	Networking layer	RRL
13	OSI stands for _____	open system interconnection	operating system interface	optical service implementation	open service Internet	open system interconnection
14	Which address is used to identify a process on a host by the transport layer?	physical address	logical address	port address	specific address	port address
15	In all reliable multicast group communication _____	n' response expected from the receiver	response from any of the receiver required	response from 'm'(1<m<n) of the 'n' receiver required	response needed from all the receivers	response needed from all the receivers
16	If processes p and q both receive messages m and m', then p receives m before m' if and only if q receives m before m'.The order delivery is called	Absolute ordering	Consistent ordering	Causal ordering	FIFO ordering	Consistent ordering
17	What is close group in group communication?	Only members can send messages to the group as a whole	processes that are not members (clients) can send message to the group.	the idea of groups is to support replicated servers	processes that are not members (clients) but close to the group can send message to the group.	Only members can send messages to the group as a whole
18	Message queuing systems is design for	transient communication	synchronous communication	tightly coupled communication	loosely coupled communication	loosely coupled communication
19	Berkeley socket is used for ____	connection-less communication	connection-oriented communication	group communication	Causal communication	connection-oriented communication
20	what is the task of RPCRuntime ?	It is responsible for marshaling	It is responsible for retransmission	It is responsible for handling exception	It is responsible for syntactic transparency	It is responsible for retransmission,
21	_____ all related objects moved and left to a server upon the first RPC	Call by value	Call by move	Call by visit	Call by reference	Call by move
22	What is the feature of stateful server?	Longer server recovery time	Quick recovery after reboot	File operations must be idempotent	Simple server design	Longer server recovery time

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				A	B	C	D	
3	10	1	In which algorithm, One process is elected as the coordinator.	Distributed mutual exclusion algorithm	Centralized mutual exclusion algorithm	Token ring algorithm	Lamport algorithm	Centralized mutual exclusion algorithm
		2	_____ is a process that prevents multiple threads or processes from accessing shared resources at the same time.	Critical section	Deadlock	Message passing	Mutual Exclusion	Mutual Exclusion
		3	Absolute time synchronization can be achieved using	Vector time stamping method	Christian's method	Lamport's method	Ricart-Agrawala algorithm	Christian's method
		4	The Ricart & Agrawala distributed mutual exclusion algorithm is:	More efficient and more fault tolerant than a centralized algorithm.	More efficient but less fault tolerant than a centralized algorithm	Less efficient but more fault tolerant than a centralized algorithm	Less efficient and less fault tolerant than a centralized algorithm	Less efficient and less fault tolerant than a centralized algorithm

Q NO	Question	A	B	C	D	Correct Answer
5	Which mutual exclusion algorithm is useful when the membership of the group is unknown?	Centralized	Lamport's.	Token ring	Decentralized Algorithm	Centralized
6	The Ricart & Agrawala distributed mutual exclusion algorithm is	More efficient and more fault tolerant than a centralized algorithm.	Less efficient and less fault tolerant than a centralized algorithm	Less efficient but more fault tolerant than a centralized algorithm.	More efficient but less fault tolerant than a centralized algorithm.	Less efficient and less fault tolerant than a centralized algorithm
7	Which event is concurrent with the vector clock (2, 8, 4)?	(3,9,5)	(3,8,4)	(1,7,3)	(4,8,2)	(4,8,2)
8	A client gets a timestamp of 4:12:30.500 from a time server. The elapsed time between the request and response was 20 msec (0.020 sec). The current time on the client is 4:12:30.510. Using Cristian's algorithm, what is the time set to on the client?	4:12:30.480	4:12:30.490	4:12:31.510	4:12:31.520	4:12:31.510
9	NTP is _____ layer protocol.	Application	session	transport	physical	Application
10	Which of the following is an example of election algorithm.	Berkley Algorithm:	Bully Algorithm.	Cristian's Algorithm	LAMPORT'S	Bully Algorithm.
11	The ring election algorithm works by:	Having all nodes in a ring of processors send a message to a coordinator who will elect the leader.	Sending a token around a set of nodes. Whoever has the token is the coordinator.	Sending a message around all available nodes and choosing the first one on the resultant list.	Building a list of all live nodes and choosing the largest numbered node in the list.	Building a list of all live nodes and choosing the largest numbered node in the list.
12	For each critical section (CS) execution, Ricart-Agrawala algorithm requires _____ messages per CS execution and the Synchronization delay in the algorithm is _____.	3(N − 1), T	2(N − 1), T	(N − 1), 2T	(N − 1), T	2(N − 1), T
13	For each critical section (CS) execution, maekawa's algorithm requires _____ messages per CS execution and the Synchronization delay in the algorithm is _____.	√N , T	2√N , T	3√N , T	3√N , 2T	3√N , 2T
14	Bully Algorithm was proposed by _____				Garcia-Molina.	
15	RAYMOND'S TREE BASED ALGORITHM is an ___	Non- token based algorithm.	Token based algorithm.	Centralized Based algorithm	physical clock synchronization algorithm.	Token based algorithm.
16	Suzuki-Kasami's Broadcast Algorithm is an	Non- token based algorithm.	Token based algorithm.	Centralized Based algorithm	physical clock synchronization algorithm.	Token based algorithm.
17	Full form of NTP is:	Network Time Protocol	New time Protocol	New Timestamp Protocol	Network Timestamp Protocol	Network Time Protocol
18	Which algorithm requires "1 to ∞" messages to enter and leave a critical region?	Token ring algorithm	Centralized algorithm	Decentralized algorithm	Distributed algorithm	Token ring algorithm

				OPTIONS		
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4	10	1	In _____ assignment of job is done at run	Dynamic load balancing algorithm	Static load balancing algorithm	Symmetric load balancing algorithm	Asymmetric load balancing algorithm	Dynamic load balancing algorithm
		2	Pretransfering also known as__	Premigrating	Precopying	Prefiltering	Postcopying	Precopying
		3	____ change the state of thread from suspe	run()	yield()	destroy()	start()	start()
		4	Distributed syatem consists of set of resour	Printer	Processor	CD	Processes	Processor
		5	This is not feature of cooperative algorithm	complex	larger overhead	worst stability	better stability	worst stability
		6	How is access to resources of various machines is done?	Remote logging using ssh or telnet	Zone are configured for automatic access	FTP is not used	FTP is used	Remote logging using ssh or telnet

Q NO	QUESTION					Correct Answer
7	What are the characteristics of data migration?	transfer data by entire file or immediate portion required	transfer the computation rather than the data	execute an entire process or parts of it at different sites	execute an entire process or parts of it at same site	transfer data by entire file or immediate portion required
8	What are the characteristics of computation migration?	transfer data by entire file or immediate portion required	transfer the computation rather than the data	execute an entire process or parts of it at different sites	execute an entire process or parts of it at same site	transfer the computation rather than the data
9	What are the characteristics of process migr	transfer data by entire file or immediate portion required	transfer the computation rather than the data	execute an entire process or parts of it at different sites	execute an entire process or parts of it at same site	execute an entire process or parts of it at different sites
10	When the process issues an I/O request _____	It is placed in an I/O queue	It is placed in a waiting queue	It is placed in the ready queue	It is placed in the Job queue	It is placed in an I/O queue

			OPTIONS			

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5	8	1	Absolute time ordering of all shared accesses matters in	Sequential Consistency	Casual Consistency	Strict Consistency	Weak Consistency	Strict Consistency
		2	In Casual consistency model all processes shared accesses in	random order	same order	sequential order	specific order	same order
		3	In which of the following consistency model all writes become perceptible to all processes	Strict	Weak	Casual	Sequential	Strict
		4	_____ consistency is that write operations by the same process are performed in the correct order everywhere.	Weak	Strict	Eventual	FIFO	FIFO
		5	Any successive write operation by a process on a data item x will be performed on a copy of x that is up to date with the value most recently read by that process.	Monotonic-write	Writes follows reads	Read your writes	Monotonic-read	Writes follows reads
		6	_____replicas are used only to improve access time on data	Client initiated	Server initiated	Permanent	Dynamic	Client initiated
		7	In _____receivers never acknowledge the successful delivery of multicast message but instead report only when missing the message.	Basic reliable multicasting	Non-hierarchical feedback control	Hierarchical feedback control	Atomic multicast	Non-hierarchical feedback control
		8	A problem with the _____ protocol is that when the coordinator has crashed, participants may not be able to reach a final decision.	One-phase commit	Three-phase commit	Two-phase commit	Virtual synchrony	Two-phase commit
		9	Optimistic logging protocols need to keep track of	Independencies	Checking points	Dependencies	Erroneous state	Dependencies
		10	Processor Consistency model guarantees and conforms that	All write accomplished on identical memory location in identical sequence.	All write accomplished on random memory location in random sequence	All write accomplished on random memory location in identical sequence	All write accomplished on identical memory location in random order	All write accomplished on identical memory location in identical sequence.
		11	Remote write protocol supports all write operations	Need to be forwarded to local server	Need to be forwarded to multiple servers.	Need to be forwarded to any server	Need to be forwarded to a fixed single server.	Need to be forwarded to a fixed single server.
		12	Staleness deviations relate to the _____ a replica was updated.	First time	Most recent time	last time	previous time	last time
		13	The placement of replica servers is	optimization problem	more of management issue	consistency	performance	more of management issue
		14	The dynamic replication algorithm takes into account	to reduce load on server	files on server can be migrated anywhere	schedule process migration	resource sharing	to reduce load on server
		15	Client Initiated Replicas are used	to improve load balancing	to improve resource sharing	to improve access time to data	to improve the performance	to improve access time to data
		16	State transition failures happens	Server fails	Server reacts unexpectedly	Client fails	Network fails	Server reacts unexpectedly

Q NO	Question	A	B	C	D	Correct Answer
17	The main problem with the reliable multicast scheme is that	Support large number of receivers	Support fixed number of receiver	cannot support fixed numbers of receivers.	cannot support large numbers of receivers.	cannot support large numbers of receivers.
18	In Erasure correction approach a missing packet is constructed from	other successfully delivered packets	last delivered packet	first packet	retransmitting packets	other successfully delivered packets
19	To improve performance, many distributed systems	combine check pointing with recovery oriented computing	combine check pointing with message logging	combine check pointing with distributed commit	combine distributed commit with message logging.	combine check pointing with message logging
20	Rebooting as a practical recovery technique requires that components are largely	coupled in the sense that there are dependencies between different components.	coupled in the sense that there are no dependencies between different components.	decoupled in the sense that there are few or no dependencies between different components	decoupled in the sense that there are dependencies between different components.	decoupled in the sense that there are few or no dependencies between different components

		OPTIONS				
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6	12	1	File Replication is done to _____	increase complexity	increase cost	increase reliability	increase data	increase reliability
		2	in NFS which funtion is used for creating new file?	open()	create()	develope()	null()	create()
		3	which command is used to create a directory	rmdir	symlink	mkdir	open	mkdir
		4	datanodes and namenode are two elements of which file system?	AFS	HDFS	NFS	None of the above	HDFS
		5	In which file system mapreduce function is used?	AFS	NFS	HDFS	None of the above	HDFS
		6	In distributed file system, DNS stands for?	Domain Name System	Domain Name Server	Directory name service	Disk name system	Domain Name System
		7	NFS file System uses _____Mechanism	RPC	CORBA	RMI	None of the above	RPC
		8	map and reduce are____	libraries	functions	file system	OS	functions
		9	In HDFS file System, A _____ serves as the master and there is only one NameNode per cluster	Data Node	NameNode	Replication	Data block	NameNode
		10	For HDFS file system, Point out the correct statement.	Each incoming file is broken into 32 MB by default	Data blocks are replicated across different nodes in the cluster to ensure a low degree of fault tolerance	DataNode is the slave/worker node and holds the user data in the form of Data Blocks	Data blocks are replicated across different nodes in the cluster to ensure a low degree of fault tolerance	DataNode is the slave/worker node and holds the user data in the form of Data Blocks
		11	HDFS works in a _____ fashion.	master-master	master-slave	slave-slave	None of the above	master-slave
		12	In HDFS file System, _____ NameNode is used when the Primary NameNode goes down.	Rack	Data	Secondary	primary	Secondary
		13	In context of HDFS file system, Point out the wrong statement.	Replication Factor can be configured at a cluster level (Default is set to 3) and also at a file level	Block Report from each DataNode contains a list of all the blocks that are stored on that DataNode	User data is stored on the local file system of DataNodes	DataNode is aware of the files to which the blocks stored on it belong to	DataNode is aware of the files to which the blocks stored on it belong to
		14	In HDFS, . _____ is the slave/worker node and holds the user data in the form of Data Blocks.	DataNode	NameNode	Data block	Replication	DataNode
		15	In distributed file system,XDR stands for?	external data request	External device request	external data recovery	External data representation	External data representation
		16	If file system is growing without affecting performance of the system then this feature is called as?	Union	portable	robust	Scalability	Scalability
		17	Storing file in_____ makes it permanently available	Secondary Memory	RAM	Register	DRAM	Secondary Memory
		18	Session file sharing semantics are suitable for caching	complete folder	complete file	One byte	one block	complete file
		19	Network file system(NFS) is developed by?	Sun Microsystem	oracle	apple	honeywell	Sun Microsystem
		20	The file once created can not be changed is called _____	Rigid file	REX file	Immutable file	Robust file	C