

Scheme	R2016
Semester	8
Course Code	CSC802
Course Name	Distributed Computing

Question No.	Question	a	b	c	d	Answer Key
1	_____ transparency hides that a resource may move to the another location.	Access transparency	Migration transparency	Replication transparency	Failure transparency	Migration transparency
2	_____ transparency hides failure and recovery of a resources.	Location transparency	Access transparency	Failure transparency	Migration transparency	Failure transparency
3	Which of the following is a form of distributed information system?	Home system	Transaction Processing System	Pervasive system	Enterprise Resource Planning system	Transaction Processing System
4	Which of the following is not a distributed computing model?	Processor-pool model	Workstation server model	Failure model	peer-to-peer	Failure model
5	Which of the following is not a layer in architecture of grid computing?	Collective layer	Connectivity layer	Remote reference layer	Fabric layer	Remote reference layer
6	NOS supports _____ OS in all nodes.	Same	Different	Linux based	Windows Based	Different
7	DOS gives the view of _____ System.	Multi-processor	Uniprocessor	Multi-controller	Virtual Uniprocessor	Virtual Uniprocessor
8	Fault tolerance in distributed systems is the method used for _____.	Heterogeneity	Security	Flexibility	Reliability	Reliability
9	Hiding the complicity of the system from user in distributed environment is known as _____.	Heterogeneity	Security	Flexibility	Transparency	Transparency
10	A distributed system is a collection of _____ computers that appears to its users as a single coherent system.	Independent	Interconnected	Interrelated	Shared	independent
11	Which of the following is correct about migration transparency?	Local and remote objects should be accessed in a uniform way	Objects are referred by logical names which hide the physical location of the objects	Movement of object from one system to the other is invisible to user	Sharing of objects without interference	Movement of object moving from one system to the other is invisible to user
12	Middleware called _____ for connecting independent systems together and makes them work together.	Homogeneous	Glue-code	Heterogeneous	Concurrent	Glue-code
13	MPI_bsend is equivalent to _____.	One way RPC	Two wayRPC	Synchronous RPC	Asynchronous RPC	One way RPC
14	_____ socket primitive attach local address to the socket	Accept	Bind	Connect	Listen	Bind
15	The calls, whose caller has expired due to node crash, is known as _____.	orphan	dead	alive	request	orphan
16	In which type of communication, messages are stored as long as sender and receiver are executing?	Persistent	Transient	RMI based Communication	RPC based Communication	Transient
17	Amazon SQS is an example of _____.	RPC	RMI	Group communication	Message Queuing System	Message Queuing System
18	The client stub is called by the _____.	server	client	host	client and server	client
19	Which ordering uses global timestamps as message id?	Total ordering	FIFO ordering	Causal Ordering	Absolute Ordering	Absolute Ordering
20	Isosynchronous is a type of which communication _____.	MOM	IPC	Stream Oriented Communication	Group Communication	Stream Oriented Communication
21	In Raymond's Algorithm, TOKEN is held by which node of the tree?	Left most Leaf node	Right most Leaf node	Root node	Intermediate node	Root node
22	At any point of time number of coordinator in distributed system is _____.	At least one	One and only one	At most one	More than one	One and only one
23	Which of the following should be satisfied for proper synchronization in distributed systems?	prevention from the deadlock is must	prevention from the starvation is must	prevention from the deadlock & starvation is must	Prevention from the livelock is must	prevention from the deadlock & starvation is must
24	How the processes are organized in a ring structure, in case of token passing approach of distributed systems?	Logically	Physically	Both logically and physically	Randomly	Logically
25	Each process should get fair chance to execute the critical region, defines which property of mutual exclusion?	Safety	Liveness	Fairness	Scheduling	Fairness
26	Time interval from a request send to its critical region execution completed is called _____.	System throughput	Message complexity	Synchronization delay	Response time	Response time
27	Maekawa's algorithm is a _____ mutual exclusion algorithm.	Token-based	Voting-based	Non-token based	Tree-based	Voting-based

28	Only one node can be in possession of the privilege (called the privileged node) at any time, except when the privilege is in transit from one node to another in the form of a PRIVILEGE message. This is true for which mutual exclusion algorithm?	Richard Agrawala's algorithm	Maekawa's algorithm	Lampport's algorithm	Raymond Tree based algorithm	Raymond Tree based algorithm
29	Lampport's algorithm is used for _____ synchronization	Deadlock	Physical Clock	Logical Clock	Election process	Logical Clock
30	In Suzuki-Kasami's mutual exclusion algorithm, synchronization delay is _____. (T is time unit)	0 or T	1 or 2T	3T	4T	0 or T
31	Which one is coordinator selection algorithm?	Ring Algorithm	Lampport's Algorithm	NTP	Berkeley Algorithm	Ring Algorithm
32	In mutual exclusion, 'no deadlock or starvation' is guaranteed by the property of _____.	Serialization	Liveness	Safety	Deadlock detection	Liveness
33	The holding (H) parameter in Raymond's tree-based algorithm represents the process/node is _____.	Holding token	Executing critical region	Holding information about node having path to token node	Holding REQUEST messages for deferred replies	Holding information about node having path to token node
34	Berkely's and Christian's clock synchronization methods are type of _____.	Logical clock synchronization method	Physical clock Synchronization method	Scalar clock synchronization method	Vector clock synchronization method	Physical clock Synchronization method
35	What is key idea to select coordinator in Bully Algorithm?	Select process with highest ID	Select process with lowest ID	Any process who identified that coordinator is failed	Random	Select process with highest ID
36	Number of REQUEST messages for entering the critical region can vary from N/2 to N in which algorithm? (N: Number of nodes)	Singhal's heuristic algorithm	Raymond's tree-based algorithm	Ricart-Agrawala's algorithm	Lampport's algorithm	Singhal's heuristic algorithm
37	The network Time protocol (NTP) which is widely used for clock synchronization on the Internet uses the _____ method. The design of NTP involves a _____ of time servers.	Differential Delay, Binary tree	Offset delay estimation, Hierarchical tree	NTP time stamps, Quorum	Physical clock delay, hierarchical tree	Offset delay estimation, Hierarchical tree
38	_____ algorithm works fine with low latency algorithm.	Berkeley	Lampport's	Vector	Cristian	Cristian
39	Which statement is false about Scheduling?	It reduces the waiting time of each job	It avoids deadlock	It makes minimum utilization of resources.	It reduces response time	It makes minimum utilization of resources
40	In which approach of distributed computing, workload is divided from heavily loaded nodes to lightly loaded nodes in an attempt to ensure good overall performance ?	Load Balancing approach	Task assignment Approach	Load Sharing Approach	Process migration	Load Balancing approach
41	The aim of load sharing approach is to refrain nodes from being _____ nodes.	Dead	Idle	Strong	Busy	Idle
42	The sender-initiated policy is preferable at _____ system loads. However, the receiver-initiated policy is preferable at _____ system loads.	Light to moderate, moderate	Light to moderate, high	Light to high, moderate	Light to moderate, light	Light to moderate, high
43	Virtualization that creates one single address space architecture is called _____.	Loosely coupled	Peer-to-Peer	Space-based	Tightly coupled	Space-based
44	Which of the following technique is not used for scheduling processes in Distributed System?	Load balancing approach	Task assignment approach	Load sharing approach	FCFS approach	FCFS approach
45	Load estimation policy is to be considered in designing _____.	Co-operative algorithm	Load balancing algorithm	Probabilistic algorithm	Static scheduling algorithm	Load balancing algorithm
46	Characteristics of threads are _____.	Parallelism, blocking system calls	No parallelism, blocking system calls	Parallelism, non blocking system calls	No parallelism, non blocking system calls	Parallelism, blocking system calls
47	Deterministic and probabilistic algorithms are the types of _____.	Static Load balancing algorithm	Dynamic Load balancing algorithm	Distributed	Centralized	Static Load balancing algorithm
48	Process of suspending execution at source and resuming at destination is known as _____.	Freezing	Suspension	Distribution	Migration	Migration
49	The following statement "Please give me load" is an example of which policy?	Receiver initiated	Sender Initiated	Load estimation	Load predication	Receiver initiated
50	Suspending, migrating all resources as well as process and then resuming is known as _____.	Total Freezing	Pre Transferring	On demand Exchange	On demand migration	Total Freezing
51	Migrating some resources, Suspending the execution, migrating the process and then resuming is known as _____.	Total Freezing	Pre Transferring	On demand Exchange	On demand migration	Pre Transferring
52	Which policy determines when it will be necessary to transfer the process from one node to another?	Selection policy	Transfer policy	Location policy	Information policy	Transfer policy

53	In static load balancing, the processes are assigned to the processors during _____.	Compile time	Run time	Any time	No need to assign. Process will be executed in its own source node.	Compile time
54	In which technique, processes are reassigned at the runtime depending upon the situation that is the load will be transferred from heavily loaded nodes to the lightly loaded nodes.	Task assignment	Static load balancing	Dynamic load balancing	Hybrid technique.	Dynamic load balancing
55	What is true about "No a priori knowledge about the processes" ?	Process assignment decisions should be dynamic i.e based on the current load of the system and not on some static policy	Heuristic methods requiring less computational efforts	Algorithms provide near optimal system performance with a minimum overhead	Scheduling algorithms that operate based on the information about the characteristics and resource requirements of the processes	Scheduling algorithms that operate based on the information about the characteristics and resource requirements of the processes
56	In case of good process migration mechanism, _____ means failure of any node other than the one on which the process is running should not affect the execution of process.	Robustness	Efficiency	Transparent	Interference	Robustness
57	A system with "m" CPUs and "n" processes has the following case "m>n" in case of task assignment approach how scheduling will take place ?	There is a need to schedule the processes on CPUs and several processes may be assigned to each CPU	Some CPUs may remain idle or work on processes allocated earlier	Each process is allocated to one CPU	This kind of scenario does not exist	Some CPUs may remain idle or work on processes allocated earlier
58	From the given options select the appropriate statement for sequential consistency(SC).	SC is the strongest and yet practical consistency model	SC allows for high availability during periods of network disconnection	SC allows a client thread to read a stale value of some variable	SC is only applicable to distributed shared memory systems and not applicable to distributed storage systems	SC is the strongest and yet practical consistency model
59	All techniques of Fault tolerance must rely on _____.	Integrity	Dependability	Redundancy	Synchronization	Redundancy
60	The data consistency models in the descending order of their strictness in consistency are _____.	Linearizability, Sequential, Casual, FIFO	FIFO,Casual,Sequential,Linearizability	Casual,Sequential,Linearizability,FIFO	Sequential,Casual,FIFO,Linearizability	FIFO, Casual, Sequential, Linearizability
61	Transparency that allows movement of resources and clients within a system is called _____.	Concurrency	Performance	Replication	Mobility	Mobility
62	Many applications tolerate some amount of inconsistency and accept that the replicas eventually become consistent over a period of time. For example, DNS and web caches server. Which consistency model is useful in this scenario?	Data-centric consistency model	Client-centric consistency model	Server Centric consistency	Database-centric Consistency	Client-centric consistency model
63	The method(s) that is/are used for backward recovery in distributed computing is _____.	Checkpoint	Message Logging	Checkpoint and message logging	Recovery Point	Checkpoint and message logging
64	_____ is the key technique that is needed to achieve fault tolerance.	Availability	Redundancy	Scalability	Heterogeneity	Redundancy
65	Writes by a single process are seen by all other processes in the order in which they were issued; however, writes from different processes may be seen in different orders by different processes.", above statement defines which consistency model?	Causal Consistency Model	FIFO consistency Model	Sequential Consistency Model	Strict consistency Model	FIFO consistency Model
66	A server changes from the correct flow of control _____.	Crash Failure	Byzantine failure	Response Failure	Timing Failure	Response Failure
67	Which is not the ways mounting of the file system?	Boot mounting	Auto mounting	Explicit mounting	Copy mounting	Copy mounting
68	What is the characteristic of Naming and Name resolution?	Name system in the network.	Address messages with the process-id	Virtual Circuit	Message Switching	Address messages with the process-id
69	Which of the following is true in case of the NFS server?	They are stateless	They save the current state of the request	They are stateful	They save previous state	They are stateless

70	Remote login is a best example of _____.	Distributed OS	Disk OS	Network OS	MAC OS	Network OS
71	Which one of the following is not a distributed file system?	Andrew File System	Network File System	Hadoop Distributed File System	Fast File System	Fast File System
72	The characteristics of NFS protocol are i. Search for file within directory ii. Read a set of directory entries iii. Manipulate links and directories From given options, which one is true?	i,iii	ii,iii	i,ii,iii	iii	i,ii,iii
73	What are the advantages of file replication?	Improves availability & performance	Decreases performance	Decreases availability	Increases Cost	Improves availability & performance
74	File caching is done _____.	To made file available	To make faster access	For transparent access	For Mobile access	To make faster access
75	Server checking whether file is updated in cache or not before using it is known as _____.	Client Validation	Server Validation	Client updating	Server Updating	Server Validation
76	_____ files are read only.	Mutable	Immutable	Setup	Recursive	Immutable
77	In which technique of cache updation -Files are modified and in parallel cache memory is also updated ?	Write through	Read any write all	Write back	Quorum based protocol	Write through
78	A DFS should provide following services _____.	Transparency, User mobility, Performance, Simplicity and ease of use.	Opacity, User mobility, Performance, Simplicity and ease of use.	Immobility, Transparency, Performance, Simplicity and ease of use.	Opacity, User mobility, Performance, difficult to use.	Transparency, User mobility, Performance, Simplicity and ease of use.
79	File services should be provided across different operating systems and hardware platforms is called as _____.	Openness	Scalability	Reliability	Heterogeneity	Heterogeneity
80	_____ supports reliable servers for all network clients accessing transparent and homogeneous namespace file locations.	Andrew File System	Distributed management System	Asynchronous system	Synchronous System	Andrew File System
81	Andrew File system was designed by _____.	Mr. Peter Andrew	Professor M. Satyanarayanan	Professor James Andrew	Google	Professor M. Satyanarayanan
82	Resource Record in DNS has _____.	Mapping of domain Name to IP address	Resources consumption records	Key Performance Indicator for Domain	Backup nodes IP Address	Mapping of domain Name to IP address
83	Which of the following is not the major component of a distributed file system : _____.	Storage Service	True file service	Name service	Authorization service	Authorization service
84	The principal transparency issue related to naming is _____ transparency.	Replication	Location	Migration	Access	Location
85	In the client - server system having memory with disk , the file can be stored in _____ location .	On any machine in network	Sever's main memory	On cloud	On Storage area network	Sever's main memory











