



Rectangular Snip

1. Which of the following is true for synchronous client server? \*  
(0/1 Point)

- ☒ All the mentioned.
- ☐ Server failures do not have to be handled immediately.
- ☐ Client cannot do any other work while waiting for reply. ✓
- ☐ The client continues without waiting for an answer from the server.

2. Reading (not modifying) incoming mail while you are on the move, and when each time you connect to a different e-mail server, that server fetches (at least) all the updates from the server you previously visited. This is called ..... client-centric consistency model. \*  
(1/1 Point)

- ☒ Monotonic Reads ✓
- ☐ Monotonic Writes
- ☐ Read Your Writes
- ☐ Write Follow Reads



3. What are the characteristics of code migration? \*  
(0/1 Point)

- ☐ Transfer part of entire data
- ☒ All the mentioned
- ☐ Transfer computation rather than the data ✓
- ☐ Execute the entire process on a different machine

4. Relocation transparency is ..... \*  
(1/1 Point)

- ☒ Hide that an object may be moved to another location while in use. ✓
- ☐ Hide that an object may be shared by several independent users.
- ☐ Hide that an object may move to another location by the distribution middleware.
- ☐ Hide the failure and recovery of an object.

5. The file server is considered? \*  
(1/1 Point)

- ☒ A stateful server ✓
- ☐ Dispatcher server
- ☐ Distributed server
- ☐ A stateless server



6. A data consistency model in which shared data are made consistent when a critical region is exited. \*  
(0/1 Point)

- ☐ Group consistency ✓
- ☐ Causal Consistency
- ☒ All the mentioned
- ☐ Sequential Consistency

7. A write operation by a process on a data item x following a previous read operation on x by the same process is guaranteed to take place on the same or a more recent value of x that was read, this is called ..... client-centric consistency model. \*

(0/1 Point)

- ☐ Monotonic Reads
- ☐ Write Follow Reads ✓
- ☒ Read Your Writes
- ☐ Monotonic Writes

8. A server process running on a remote machine is identified by ..... \*

(1/1 Point)

- ☒ Host IP and port number ✓
- ☐ Host IP
- ☐ Endpoint or Port number
- ☐ Host IP and Process ID

9. System size scalability means ..... \*


(1/1 Point)

- ☐ Increasing distance between nodes.
- ☒ Increasing number of users and/or processes. ✓
- ☐ Decreasing number of users and/or processes.
- ☐ Decreasing distance between nodes.

10. A new write on a replica should wait for all old writes on any replica, this is called ..... client-centric consistency model. \*

(1/1 Point)


- ☐ Monotonic Reads
- ☐ Read Your Writes
- ☐ Write Follow Reads
- ☒ Monotonic Writes ✓

11. The TCP Handoff protocol is used in ..... \*   
(1/1 Point)

- ☐ All the mentioned.
- ☐ Peer to peer network.
- ☒ Distributed servers cluster in a LAN. ✓
- ☐ Distributed servers in a WAN.

12. Which of the following is true for the electronic mail system? \*  
(1/1 Point)

- ☐ Both coordinating processes temporally coupled and referentially coupled.
- ☒ Both coordinating processes temporally decoupled and referentially coupled. ✓
- ☐ Both coordinating processes temporally decoupled and referentially decoupled.
- ☐ Both coordinating processes temporally coupled and referentially decoupled.

13. Which of the following is true for the event-based architecture? \*   
(0/1 Point)

- ☐ Both coordinating processes temporally decoupled and referentially coupled.
- ☒ Both coordinating processes temporally coupled and referentially coupled.
- ☐ Both coordinating processes temporally decoupled and referentially decoupled.
- ☐ Both coordinating processes temporally coupled and referentially decoupled. ✓

14. An architecture that moves the client query to a middle tier where a stateless design can be used is called .... \*  
(1/1 Point)

- ☒ Three tier architecture ✓
- ☐ Client Server Architecture
- ☐ Peer to Peer architecture
- ☐ Stateful architecture

15. The skype network follows which organization? \*  
(1/1 Point)

- ☐ Structured peer to peer
- ☒ Hierarchical peer to peer ✓
- ☐ Client server
- ☐ Unstructured peer to peer

16. Migration transparency is ..... \*  
(1/1 Point)

- ☐ Hide that an object may be shared by several independent users.
- ☒ Hide that an object may move to another location by the distribution middleware. ✓
- ☐ Hide that an object may be moved to another location while in use
- ☐ Hide the failure and recovery of an object.

17. Which of the following is not an advantage of distributed systems? \*  
(1/1 Point)

- ☐ Scalability
- ☐ Resource sharing
- ☐ All the mentioned
- ☒ Reliability ✓

18. .... is used to interrupt a server. \*  
(1/1 Point)

- ☒ Control communication ✓
- ☐ Data communication
- ☐ No way to interrupt a server
- ☐ All the mentioned

19. In which structure, the processing nodes are organized as an overlay with specific structure? \*  
(1/1 Point)

- ☐ Client server
- ☒ Structured Peer to peer ✓
- ☐ Structured client server
- ☐ Unstructured peer to peer

20. Access transparency is ..... \*  
(1/1 Point)

- ☐ Hide that an object is replicated.
- ☐ Hide where an object is located.
- ☒ Hide differences in data representation and how an object is accessed. ✓
- ☐ Hide that an object may be shared by several independent users.

21. Which of the following is used to search for a data in a node in the unstructured peer to peer network? \*  
(1/1 Point)

- ☐ A specific route is followed from the source to the destination.
- ☐ Using Random walks search.
- ☐ Using Flooding search.
- ☒ Using Flooding search or Random walks search. ✓

22. Which of the following cloud organization that provides web services and applications? \*  
(1/1 Point)


- ☒ Software as a Service ✓
- ☐ Resources as a Service
- ☐ Infrastructure as a Service
- ☐ Platform as a Service.

23. In transient communication, ..... \*  
(1/1 Point)

- ☐ All the mentioned.
- ☐ Communication middleware stores the message as long as it takes to deliver it.
- ☒ Communication middleware discards message when it cannot be delivered at the receiver. ✓
- ☐ Communication middleware dispatches messages to the neighbor server.

24. PlanetLab is an example of ..... \*  
(1/1 Point)

- ☐ Distributed grid
  - ☐ All the mentioned
  - ☐ Distributed cloud
  - ☒ Distributed cluster ✓
-

25. Which of the following cloud organizations that provides hardware resources in terms of virtual machines? \* 

(1/1 Point)


- ☐ Resources as a Service
- ☒ Infrastructure as a Service ✓
- ☐ Software as a Service
- ☐ Platform as a Service.

26. .... is used to save server resources and forks the server process when a request comes in. \*

(1/1 Point)

- ☐ All the mentioned
- ☒ Super-server daemon ✓
- ☐ Internet Associated number Authority table
- ☐ A special daemon runs on the server



27. Which of the following is true for a temporally coupled coordination? \*   
(1/1 Point)

- ☐ There is no need for direct communication.
- ☐ All the mentioned.
- ☐ Both coordinating processes share data space.
- ☒ Both coordinating processes have to be up and running at the same time. ✓

28. .... is used to dynamically assign a dynamic server endpoint. \*  
(1/1 Point)

- ☒ A special daemon runs on the server ✓
  - ☐ Super-server
  - ☐ Internet Associated number Authority table
  - ☐ All the mentioned
-

29. In Cluster Computing, which types of computer resources are there? \*  
(1/1 Point)

- ☐ Heterogeneous resources within a single administrative domain.
- ☐ Homogenous resources across multiple administrative domain.
- ☐ Heterogeneous resources across multiple administrative domain.
- ☒ Homogenous resources within a single administrative domain. ✓

30. Which of the following is the benefit of using threads? \*  
(1/1 Point)

- ☐ Exploit parallelism
- ☒ All the mentioned ✓
- ☐ Avoid I/O blocking
- ☐ Avoid process context switch

31. Distribution transparency is ..... \*  
(1/1 Point)

- ☒ All the mentioned ✓
- ☐ Failure transparency.
- ☐ Replication transparency.
- ☐ Access transparency.

32. A server that does not handle the request but passes the request to another thread or process is called ..... \*  
(1/1 Point)

- ☐ Iterative server
- ☒ Concurrent server ✓
- ☐ Single thread server
- ☐ All the mentioned

33. Concurrency transparency is ..... \*

(1/1 Point)

- ☐ Hide that an object is replicated.
- ☐ Hide where an object is located.
- ☐ Hide differences in data representation and how an object is accessed.
- ☒ Hide that an object may be shared by several independent users. ✓

34. An iterative server is ..... \*

(1/1 Point)

- ☒ A single thread server ✓
- ☐ A concurrent server
- ☐ A multithread server
- ☐ All the mentioned

35. The server which never keep accurate information about the status of a client after having handled a request is called ..... \*  
(1/1 Point)

- ☐ A multithread server
- ☐ A single thread server
- ☒ A stateless server ✓
- ☐ A stateful server

36. Which of the following is true for the share data space communication? \*  
(1/1 Point)


- ☐ Both coordinating processes temporally coupled and referentially decoupled.
- ☐ Both coordinating processes temporally coupled and referentially coupled.
- ☐ Both coordinating processes temporally decoupled and referentially coupled.
- ☒ Both coordinating processes temporally decoupled and referentially decoupled. ✓

37. Which of the following is an example of distributed pervasive system? \*  
(1/1 Point)

- ☐ Cluster computing
- ☒ Sensors networks ✓
- ☐ Cloud computing
- ☐ Grid Computing

38. In Grid Computing, which types of computer resources are there? \*  
(1/1 Point)

- ☒ Heterogeneous resources across multiple administrative domain. ✓
- ☐ Homogenous resources across multiple administrative domain.
- ☐ Heterogeneous resources within a single administrative domain.
- ☐ Homogenous resources within a single administrative domain.

39. One of the problems of geographical scalability is ..... \*   
(1/1 Point)

- ☒ All the mentioned. ✓
- ☐ Latency.
- ☐ Multipoint communication.
- ☐ Unreliable communication.



40. Making copies of data available or processes at different machines is ..... \*  
(0/1 Point)

- ☐ Partition data and computations across multiple machines.
- ☒ Relocation
- ☐ All the mentioned.
- ☐ Replication. ✓

41. Which consistency protocol uses the voting scheme? \*  
(0/1 Point)

- ☐ Local-Write Protocol
- ☒ Active Replication Protocol
- ☐ Remote-Write Protocol
- ☐ Quorum-Based Protocol ✓

42. One of the replication problem is ..... \*  
(1/1 Point)

- ☒ Consistency ✓
- ☐ Network latency.
- ☐ All the mentioned.
- ☐ Failure



43. Which layer in the ISO model is responsible for process to process delivery? \*  
(1/1 Point)

- ☐ Application layer
- ☒ Transport layer ✓
- ☐ Network layer
- ☐ Physical layer

44. What are the characteristics of process migration? \*  
(1/1 Point)

- ☐ Transfer part of entire data
- ☐ Transfer computation rather than the data
- ☒ Execute the entire process on a different machine ✓
- ☐ All the mentioned

45. Process Migration can be done in heterogeneous systems using ..... \*   
(1/1 Point)

- ☐ Context switch
- ☐ Cloning
- ☒ Virtual machines ✓
- ☐ Threads



46. Concurrent writes must be seen in a same order on different machines is the necessary condition in ..... \*  
(0/1 Point)


- ☐ Group consistency
- ☐ Sequential Consistency ✓
- ☐ Causal Consistency
- ☒ All the mentioned

47. The capability of a system to adapt to increasing service requests is called ..... \*  
(1/1 Point)

- ☐ Tolerance
- ☐ Capacity
- ☒ Scalability ✓
- ☐ Reliability

48. The REST architecture is considered a ..... \*  
(1/1 Point)

- ☐ Object-based architecture
- ☒ Resource based architecture ✓
- ☐ Layered architecture
- ☐ Event based architecture

49. Administrative scalability means ..... \*   
(1/1 Point)

- ☐ Decreasing number of administrative domains.
- ☐ Increasing heterogeneous machines.
- ☒ Increasing number of administrative domains. ✓
- ☐ Decreasing heterogeneous machines.



50. In which consistency protocol the primary replica migrates to the process wanting to perform an update \*  
(0/1 Point)

- ☐ Local-Write Protocol ✓
- ☐ Replicated-Write Protocols
- ☒ Remote-Write Protocol
- ☐ Active Replication Protocol

51. In persistent communication, ..... \*

(1/1 Point)

- ☒ Communication middleware stores the message as long as it takes to deliver it. ✓
- ☐ All the mentioned.
- ☐ Communication middleware dispatches messages to the neighbor server.
- ☐ Communication middleware discards message when it cannot be delivered at the receiver.

52. Failure transparency is ..... \*

(1/1 Point)


- ☐ Hide that an object may move to another location by the distribution middleware.
- ☐ Hide that an object may be moved to another location while in use
- ☐ Hide that an object may be shared by several independent users.
- ☒ Hide the failure and recovery of an object. ✓

53. Which of the following is true for synchronous client server? \*  
(1/1 Point)

- ☐ Server failures have to be handled immediately.
- ☐ Client issues request and blocks until it receives reply.
- ☐ Client and server have to be active at time of communication.
- ☒ All the mentioned. ✓

54. The web server is considered? \*  
(1/1 Point)

- ☐ Dispatcher server
- ☐ A stateful server
- ☐ Distributed server
- ☒ A stateless server ✓

55. In which architecture, the distributed application consists of a logical layering? \*   
(1/1 Point)

- ☐ Event based architecture
- ☐ Resource based architecture
- ☐ Service oriented architecture
- ☒ Layered architecture ✓



56. In which consistency protocol the clients write at any replica where there is (no primary replicas, and the altered replica will propagate updates to other replicas)? \*  
(0/1 Point)

- ☒ Remote-Write Protocol
- ☐ Quorum-Based Protocol
- ☐ Local-Write Protocol
- ☐ Active Replication Protocol ✓

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57. Replication transparency is ..... \*  
(1/1 Point)


- ☐ Hide where an object is located.
- ☐ Hide that an object may be shared by several independent users.
- ☐ Hide differences in data representation and how an object is accessed.
- ☒ Hide that an object is replicated. ✓



58. In which protocol all write operations are forwarded to the primary replica? \*  
(0/1 Point)

- ☐ Local-Write Protocol
- ☒ Replicated-Write Protocols
- ☐ Remote-Write Protocol ✓
- ☐ Active Replication Protocol




59. On of the scalability techniques is ..... \*   
(1/1 Point)

- ☐ Partition data and computations across multiple machines.
- ☒ All the mentioned. ✓
- ☐ Hide communication latencies.
- ☐ Replication.



60. Concurrent writes may be seen in a different order on different machines is the necessary condition in ..... \*  
(0/1 Point)

- ☒ Sequential Consistency
- ☐ All the mentioned
- ☐ Causal Consistency ✓
- ☐ Group consistency

61. Geographically scalability means ..... \*   
(1/1 Point)

- ☐ Decreasing distance between nodes.
- ☒ Increasing distance between nodes. ✓
- ☐ Decreasing number of users and/or processes.
- ☐ Increasing number of users and/or processes.

62. A single client/server may suffer from ..... \*  
(1/1 Point)

- ☐ Administrative scalability.
- ☐ Heterogeneous scalability.
- ☐ All the mentioned.
- ☒ Size scalability. ✓

63. The mobile IP, home address, and care of address is used in ..... \*  
(1/1 Point)

- ☒ Distributed servers in a WAN. ✓
- ☐ Distributed servers cluster in a LAN.
- ☐ Peer to peer network.
- ☐ All the mentioned.

64. Which of the following is true for asynchronous client server? \*  
(1/1 Point)

- ☐ Client cannot do any other work while waiting for reply.
- ☐ Server failures have to be handled immediately.
- ☐ All the mentioned.
- ☒ The client continues without waiting for an answer from the server. ✓

65. In which architecture, the distributed application consists of a composition of many different services? \*  
(1/1 Point)

- ☐ Event based architecture
- ☐ Layered architecture
- ☒ Service oriented architecture ✓
- ☐ Resource based architecture