**Distributed Computing System MCQ**

1. In distributed system, each processor has its own \_\_\_\_\_\_\_\_\_\_\_  
   a) local memory  
   b) clock  
   c) both local memory and clock  
   d) none of the mentioned.

2. If one site fails in distributed system then \_\_\_\_\_\_\_\_\_\_\_  
 a) the remaining sites can continue operating  
 b) all the sites will stop working  
 c) directly connected sites will stop working  
 d) none of the mentioned

3. Network operating system runs on \_\_\_\_\_\_\_\_\_\_\_  
a) server  
b) every system in the network  
c) both server and every system in the network  
d) none of the mentioned

4. Which technique is based on compile-time program transformation for accessing remote data in a distributed-memory parallel system?  
a) cache coherence scheme  
b) computation migration  
c) remote procedure call  
d) message passing

5. Logical extension of computation migration is \_\_\_\_\_\_\_\_\_\_\_  
a) process migration  
b) system migration  
c) thread migration  
d) data migration

6. Processes on the remote systems are identified by \_\_\_\_\_\_\_\_\_\_\_  
a) host ID  
b) host name and identifier  
c) identifier  
d) process ID

7. Which routing technique is used in a distributed system?  
a) fixed routing  
b) virtual routing  
c) dynamic routing  
d) all of the mentioned

8. In distributed systems, link and site failure is detected by \_\_\_\_\_\_\_\_\_\_\_  
a) polling  
b) handshaking  
c) token passing  
d) none of the mentioned

9. The capability of a system to adapt the increased service load is called \_\_\_\_\_\_\_\_\_\_\_  
a) scalability  
b) tolerance  
c) capacity  
d) none of the mentioned

10. Internet provides \_\_\_\_\_\_\_ for remote login.  
a) telnet  
b) http  
c) ftp  
d) rpc

11. What is Inter process communication?  
a) allows processes to communicate and synchronize their actions when using the same address space  
b) allows processes to communicate and synchronize their actions without using the same address space  
c) allows the processes to only synchronize their actions without communication  
d) none of the mentioned.

12. Message passing system allows processes to \_\_\_\_\_\_\_\_\_\_  
a) communicate with one another without resorting to shared data  
b) communicate with one another by resorting to shared data  
c) share data  
d) name the recipient or sender of the message.

13. Which of the following two operations are provided by the IPC facility?  
a) write & delete message  
b) delete & receive message  
c) send & delete message  
d) receive & send message.

14. Messages sent by a process \_\_\_\_\_\_\_\_\_\_  
a) have to be of a fixed size  
b) have to be a variable size  
c) can be fixed or variable sized  
d) None of the mentioned

15. The link between two processes P and Q to send and receive messages is called \_\_\_\_\_\_\_\_\_\_  
a) communication link  
b) message-passing link  
c) synchronization link  
d) all of the mentioned.

16. Which of the following are TRUE for direct communication?  
a) A communication link can be associated with N number of process(N = max. number of processes supported by system)  
b) A communication link can be associated with exactly two processes  
c) Exactly N/2 links exist between each pair of processes(N = max. number of processes supported by system)  
d) Exactly two link exists between each pair of processes.

17. In indirect communication between processes P and Q \_\_\_\_\_\_\_\_\_\_  
a) there is another process R to handle and pass on the messages between P and Q  
b) there is another machine between the two processes to help communication  
c) there is a mailbox to help communication between P and Q  
d) none of the mentioned.

18. In the non blocking send \_\_\_\_\_\_\_\_\_\_  
a) the sending process keeps sending until the message is received  
b) the sending process sends the message and resumes operation  
c) the sending process keeps sending until it receives a message  
d) none of the mentioned

19. In the Zero capacity queue \_\_\_\_\_\_\_\_\_\_  
a) the queue can store at least one message  
b) the sender blocks until the receiver receives the message  
c) the sender keeps sending and the messages don’t wait in the queue  
d) none of the mentioned.

20. The Zero Capacity queue \_\_\_\_\_\_\_\_\_\_  
a) is referred to as a message system with buffering  
b) is referred to as a message system with no buffering  
c) is referred to as a link  
d) none of the mentioned

21. In distributed system, each processor has its own \_\_\_\_\_\_\_\_\_\_\_  
a) local memory  
b) clock  
c) both local memory and clock  
d) none of the mentioned

22. If one site fails in distributed system then \_\_\_\_\_\_\_\_\_\_\_  
a) the remaining sites can continue operating  
b) all the sites will stop working  
c) directly connected sites will stop working  
d) none of the mentioned

23. Network operating system runs on \_\_\_\_\_\_\_\_\_\_\_  
a) server  
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24. Which technique is based on compile-time program transformation for accessing remote data in a distributed-memory parallel system?  
a) cache coherence scheme  
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c) remote procedure call  
d) message passing

25. Logical extension of computation migration is \_\_\_\_\_\_\_\_\_\_\_  
a) process migration  
b) system migration  
c) thread migration  
d) data migration

26. Processes on the remote systems are identified by \_\_\_\_\_\_\_\_\_\_\_  
a) host ID  
b) host name and identifier  
c) identifier  
d) process ID

27. In distributed systems, link and site failure is detected by \_\_\_\_\_\_\_\_\_\_\_  
a) polling  
b) handshaking  
c) token passing  
d) none of the mentioned

28. The capability of a system to adapt the increased service load is called \_\_\_\_\_\_\_\_\_\_\_  
a) scalability  
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29. Internet provides \_\_\_\_\_\_\_ for remote login.  
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d) rpc

Q.30 AES uses a \_\_\_\_\_\_\_\_\_\_\_\_ bit block size and a key size of \_\_\_\_\_\_\_\_\_\_ bits.[2m]  
a) 128; 128 or 256  
b) 64; 128 or 192  
c) 256; 128, 192, or 256  
d) 128; 128, 192, or 256

Q.31 Like DES, AES also uses Feistel Structure. [2m]  
a) True  
b) False

Q.32 How many rounds does the AES-192 perform? [2m]  
a) 10  
b) 12  
c) 14  
d) 16

Q.33 What is the expanded key size of AES-192? [2m]  
a) 44 words  
b) 60 words  
c) 52 words  
d) 36 words

Q.34 The 4×4 byte matrices in the AES algorithm are called[2m]  
a) States  
b) Words  
c) Transitions  
d) Permutations

Q.35. In AES the 4×4 bytes matrix key is transformed into a keys of size \_\_\_\_\_\_\_\_\_\_[1m]  
a) 32 words  
b) 64 words

Q.36In distributed systems, a logical clock is associated with \_\_\_\_\_\_\_\_\_\_\_\_\_\_[2m]  
a) each instruction  
b) each process  
c) each register  
d) none of the mentioned

Q.37 If timestamps of two events are same, then the events are \_\_\_\_\_\_\_\_\_\_\_\_[2m]  
a) concurrent  
b) non-concurrent  
c) monotonic  
d) non-monotonic

Q.38 If a process is executing in its critical section \_\_\_\_\_\_\_\_\_\_\_\_[2m]  
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) none of the mentioned

Q.39 A process can enter into its critical section \_\_\_\_\_\_\_\_\_\_\_\_[2m]  
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) none of the mentioned

Q.40 For proper synchronization in distributed systems \_\_\_\_\_\_\_\_\_\_\_\_[1m]  
a) prevention from the deadlock is must  
b) prevention from the starvation is must  
c) prevention from the deadlock & starvation is must  
d) none of the mentioned

Q.41. In distributed system each processor has its own[1m]

a) local memory

b) clock

c) both local memory and clock

d) none of the mentione

Q.42 If one site fails in distributed system[1m]

a) the remaining sites can continue operating

b) all the sites will stop working

c) directly connected sites will stop working

d) none of the mentioned

Q. 43What are the characteristics of tightly coupled system? [1m]  
i) Same clock, usually shared memory  
ii) Communication is via this shared memory  
iii) Multiprocessors  
iv) Different clock  
a) i  
b) i, ii and ii  
c) ii and iii  
d) i, iii and iv

Q. 44What are the characteristics of tightly coupled system? [1m]  
i) Different clock  
ii) Use communication links  
iii) Same clock  
iv) Distributed systems

Q.45 What are the characteristics of mutual exclusion using centralized approach? [1m]  
a) One processor as coordinator which handles all requests  
b) It requires request, reply and release per critical section entry  
c) The method is free from starvation  
d) All of the mentioned

Q.46 What are the parts of a global unique identifier? [1m]  
a) Local unique timestamp  
b) Remote timestamp  
c) Clock number  
d) All of the mentioned

c) 54 words  
d) 44 words

Q.47 There is an addition of round key before the start of the AES round algorithms. [1m]  
a) True  
b) False

Q.48How many modes of operation are there in in DES and AES? [1m]  
a) 4  
b) 3  
c) 2  
d) 5

Q.49 Which one of the following modes of operation in DES is used for operating short data? [1m]  
a) Cipher Feedback Mode (CFB)  
b) Cipher Block chaining (CBC)  
c) Electronic code book (ECB)  
d) Output Feedback Modes (OFB)

Q.50Which of the following statements are true[1m]  
i) In the CBC mode, the plaintext block is XORed with previous ciphertext block before encryption  
ii) The CTR mode does not require an Initialization Vector  
iii) The last block in the CBC mode uses an Initialization Vector  
iv) In CBC mode repetitions in plaintext do not show up in ciphertext

Q.51 The file once created can not be changed is called \_\_\_\_\_\_\_\_\_\_\_[2m]  
a) immutable file  
b) mutex file  
c) mutable file  
d) none of the mentioned

Q52 \_\_\_\_\_\_ of the distributed file system are dispersed among various machines of distributed system. [2m]  
a) Clients  
b) Servers  
c) Storage devices  
d) All of the mentioned

Q.53 \_\_\_\_\_\_\_ is not possible in distributed file system. [2m]  
a) File replication  
b) Migration  
c) Client interface  
d) Remote access

Q.54 Which one of the following hides the location where in the network the file is stored? [2m]  
a) transparent distributed file system  
b) hidden distributed file system  
c) escaped distribution file system  
d) spy distributed file system

Q.55  In a distributed file system, when a file’s physical storage location changes \_\_\_\_\_\_\_\_\_\_\_[2m]  
a) file name need to be changed  
b) file name need not to be changed  
c) file’s host name need to be changed  
d) file’s local name need to be changed

Q.56.  In a distributed file system, \_\_\_\_\_\_\_ is mapping between logical and physical objects. [1m]  
a) client interfacing  
b) naming  
c) migration  
d) heterogeneity

Q.57 In a distributed file system, a file is uniquely identified by \_\_\_\_\_\_\_\_\_\_\_[1m]  
a) host name  
b) local name  
c) the combination of host name and local name  
d) none of the mentioned

Q.58 There is no need to establish and terminate a connection through open and close operation in \_\_\_\_\_\_\_\_\_\_\_[1m]  
a) stateless file service  
b) stateful file service  
c) both stateless and stateful file service  
d) none of the mentioned

Q.59 In distributed file system, file name does not reveal the file’s \_\_\_\_\_\_\_\_\_\_\_[1m]  
a) local name  
b) physical storage location  
c) both local name and physical storage location  
d) none of the mentioned

Q.60 Which one of the following is a distributed file system? [1m]  
a) andrew file system  
b) network file system  
c) novel network  
d) all of the mentioned

Q.61 Which of the following is true?  
a) Prim’s algorithm initialises with a vertex  
b) Prim’s algorithm initialises with a edge  
c) Prim’s algorithm initialises with a vertex which has smallest edge  
d) Prim’s algorithm initialises with a forest

Q.62 Consider the given graph.  
  
Q.63What is the weight of the minimum spanning tree using the Prim’s algorithm,starting from vertex a?  
a) 23  
b) 28  
c) 27  
d) 11

Q.64 Worst case is the worst case time complexity of Prim’s algorithm if adjacency matrix is used?  
a) O(log V)  
b) O(V2)  
c) O(E2)  
d) O(V log E)

Q.65 Prim’s algorithm is a \_\_\_\_\_\_  
a) Divide and conquer algorithm  
b) Greedy algorithm  
c) Dynamic Programming  
d) Approximation algorithm

Q.66 Prim’s algorithm resembles Dijkstra’s algorithm.  
a) True  
b) False

1. Kruskal’s algorithm is best suited for the sparse graphs than the prim’s algorithm.  
   a) True  
   b) False

**Q.67 Utility computing focuses on a\_\_\_\_\_\_\_\_\_\_\_\_\_\_ model.**

A. Data  
B. Cloud  
C. Scalable  
D. Business  
E. All of these  
F. None of these

**Q.70: Peer-to-Peer leads to the development of  technologies like**

A. Norming grids

B. Data grids

C. Computational grids

D. Both A and B

E. All of these  
F. None of these

**Q71:  The development generations of  Computer technology has gone through**

A. 6  
B. 3  
C. 4  
D. 5  
E. All of these  
F. None of these

**Q.72 Even under failure conditions Providing Quality of Service (QoS) assurance is the responsibility of**

A. Dependability  
B. Adaptation  
C. Flexibility  
D. Efficiency  
E. All of these  
F. None of these

Q.73: Interprocessor communication that takes place

**A. Centralized memory  
B. Shared memory  
C. Message passing  
D. Both A and B  
E. All of these  
F. None of these**

Q.74: Data centers and centralized computing covers many and

**A. Microcomputers  
B. Minicomputers  
C. Mainframe computers  
D. Supercomputers  
E. All of these  
F. None of these**

Q.75: The  high-throughput service provided is measures taken by

**A. Flexibility  
B. Efficiency  
D. Adaptation  
E. Dependability  
F. All of these  
G. None of these**