

DC sample questions for practice

Question

No

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**Token based algorithms require 2 or more successive rounds of message exchanges among the sites**

1

a TRUE

b FALSE

**Synchronization delay is**

2

a. The time interval a request waits for its CS execution to be over after its request messages have been sent out.

b. The time required after a site leaves the CS and before the next site enters the CS.

c. The rate at which the system executes requests for the CS.

d. None of the above

**The response time is**

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a. The rate at which the system executes requests for the CS.

b. The time required after a site leaves the CS and before the next site enters the CS.

c. The time interval a request waits for its CS execution to be over after its request messages have been sent out.

d. None of the above

**System Throughput is**

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a. The rate at which the system executes requests for the CS.

b. The time required after a site leaves the CS and before the next site enters the CS.

c. The time interval a request waits for its CS execution to be over after its request messages have been sent out.

d. None of the above

**Lamport's algorithm for mutual exclusion requires**

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a.  $4(n-1)$  messages per CS invocation

b.  $(n-1)$  messages per CS invocation

c.  $n$  messages per CS invocation

d.  $3(n-1)$  messages per CS invocation

**Ricart and Agrawala's algorithm for mutual exclusion requires**

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a.  $(n-1)$  messages per CS invocation

b.  $n$  messages per CS invocation

c.  $2(n-1)$  messages per CS invocation

d. None of the above

**In which algorithm the execution of a CS requires  $\sqrt{N}$  REQUEST,  $\sqrt{N}$  REPLY and  $\sqrt{N}$  RELEASE messages in**

7

a. Ring Algorithm

b. Maekawa algorithm

c. Lamport's algorithm

d. Ricart and Agrawala's algorithm

**A failed message from  $S_i$  to  $S_j$  indicates that**

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a.  $S_i$  cannot grant  $S_j$ 's request because it has currently granted permission to a site with a higher priority request.

b.  $S_i$  would like to find out from  $S_j$  if it has succeeded in locking all sites in its request set.

c.  $S_i$  is returning the permission to  $S_j$ .

d. None of the above

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**A yield message from  $S_i$  to  $S_j$  indicates that**

- a. Si cannot grant Sj's request because it has currently granted permission to a site with a higher priority request.
- b. Si would like to find out from Sj ,if it has succeeded in locking all sites in its request set.
- c. Si is returning the permission to Sj.
- d. None of the above

**An inquire message from Si to Sj indicates that**

- 10
- a. Si cannot grant Sj's request because it has currently granted permission to a site with a higher priority request.
  - b. Si would like to find out from Sj ,if it has succeeded in locking all sites in its request set.
  - c. Si is returning the permission to Sj.
  - d. None of the above

Communication in distributed systems is based on

- 11
- a) High level message passing
  - b) Low level message passing
  - c) Middleware message passing
  - d) Layered protocol

In distributed systems which of the following models are used for communication

- 12
- a) Message -oriented RPC
  - b) Remote Procedure call
  - c) Data Streaming
  - d) All of the above

Parameter Marshaling means

- 13
- a) Sending parameters into a message
  - b) Receiving parameters into a message
  - c) Packing parameters into a message
  - d) None of the above

A remote procedure call is

- 14
- a) inter-process communication
  - b) a single process
  - c) a single thread
  - d) a single stream

An RPC application requires

- 15
- a) specific protocol for client server communication
  - b) a client program

- c) a server program
- d) all of the mentioned

The local operating system on the server machine passes the incoming packets to the

- 16
- a) Server stub
  - b) client stub
  - c) client operating system
  - d) none of the above

Which RPC is useful when a reply will be returned but client is not prepared to wait for it and do nothing in meantime.

- 17
- a) Synchronous RPC
  - b) Asynchronous RPC
  - c) One way RPC
  - d) Deferred RPC

There are number of services that form part of DCE(Distributed Computing Environment) itself. Which service provides a transparent way of accessing any file in the system in the same way worldwide.

- 18
- a) Directory Service
  - b) Security Service
  - c) Distributed File Service
  - d) Distributed time Service

Language-level objects, from which proxy and skeletons are automatically generated. Depends on the particular language are called as

- 19
- a) Transient objects
  - b) Compile time objects
  - c) Runtime objects
  - d) Persistent Objects

A client binds to a distributed object: an implementation of the object's interface, called a \_\_\_\_\_, is loaded into the client's address space.

- 20
- a) Skeleton
  - b) Proxy
  - c) Client stub
  - d) Server Stub

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- The data stores in client centric consistency models have

- a) No simultaneous updates
- b) Very strong consistency models
- c) Inconsistencies that can not be hidden
- d) None of the above

Eventual consistency essentially requires only that updates are guaranteed to propagate to all replicas

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- a) True
- b) False

Eventual consistent data store provides better performance when no of replicas accessed is limited to

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- a)  $2^{\text{no. of clients}}$
- b)  $2^{\text{no. of clients}-1}$
- c) One
- d) Both a and b

If a process has seen a value of X at time t, then it will never see an older version of X at a later time. This consistency model is

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- a) Monotonic writes
- b) Monotonic reads
- c) Monotonic writes and reads
- d) None of the above

A write operation is always completed before a successive read operation by the same process, no matter where that read operation takes place. This consistency model is

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- a) Read after writes
- b) Writes after reads
- c) Read your writes
- d) Writes your reads

In writes follow reads consistency models, the updates are propagated as a result of previous read operations

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- a) True
- b) False
- c) Selectively true
- d) Selectively false

If no updates take place for a long time, all replicas will gradually become consistent. This form of consistency is called

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- a) Local consistency
- b) Strict local consistency
- c) Eventual consistency

d) Strict Eventual consistency

In token based algorithm for mutual exclusion, which of the following statement is true

- 28
- a) A unique token is shared among all sites
  - b) A site is allowed to enter its CS if it possesses the token
  - c) Sequence numbers are used instead of time stamps
  - d) All of the above

Which algorithm uses heuristic approach to select a site for sending token request messages

- 29
- a) Suzuki kasami algorithm
  - b) Raymond's algorithm
  - c) Maekawa's algorithm
  - d) Singhal's algorithm

Synchronization delay for raymonds's tree based method is

- 30
- a)  $\log N$
  - b)  $2T$
  - c)  $(T \cdot \log N)/2$
  - d)  $T \cdot \log N$

Suzuki kasami broadcast algorithm requires \_\_\_\_\_ messages per CS invocation

- 31
- a)  $N$
  - b)  $\sqrt{N}$
  - c)  $2(N-1)$
  - d)  $N/2$

Raymond's algorithm is prone to deadlocks

- 32
- a) True
  - b) False

Design issue in Suzuki kasami algorithm is

- 33
- a) Outdated requests
  - b) Current requests
  - c) Outstanding requests
  - d) All of the above

Which algorithm requires  $N/2$  messages per CS execution

- 34
- a) Lamport's algorithm
  - b) Suzuki kasami algorithm
  - c) Maekawa's algorithm
  - d) Singhal's algorithm

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- In Raymond's tree based method, the holder variable of root site points to

- a) Left sub tree
- b) Right sub tree
- c) Root
- d) Root site does not have holder variable