

Assignment 06

The due date for submitting this assignment has passed.

Due on 2020-04-08, 23:59 IST.

Assignment submitted on 2020-04-06, 14:50 IST

1) At what stage(s) in the transaction flow can the endorsement policies be validated ?

1 point

- ☐ Proposal Submission to the peers.
- ☐ Submit Collated Responses to the Orderer.
- ☐ Orderer creates the block of transactions.
- ☒ Peer commits the block of transactions.

No, the answer is incorrect.

Score: 0

Accepted Answers:

Submit Collated Responses to the Orderer.

2) Is it possible that transactions are ordered by different nodes and executed on different nodes in Hyperledger Fabric?

1 point

- ☐ false
- ☒ true

Yes, the answer is correct.

Score: 1

Accepted Answers:

true

3) If a request r' is seen by a replica $sm(i)$ after r has been accepted by $sm(i)$ then:

1 point

- ☒ $uid(r) < cuid(sm(i), r')$
 $cuid(sm(i), r) \leq uid(r)$
- ☐

- ☐ $uid(r) \leq cuid(sm(i), r)$
 $cuid(sm(i), r) \leq uid(r)$
- ☐ $uid(r) < cuid(sm(i), r)$
 $cuid(sm(i), r) < uid(r)$
- ☐ $uid(r) > cuid(sm(i), r)$
 $cuid(sm(i), r) \leq uid(r)$

Yes, the answer is correct.

Score: 1

Accepted Answers:

$uid(r) < cuid(sm(i), r)$
 $cuid(sm(i), r) \leq uid(r)$

4) In Fail-Stop Tolerance: Minimum number of working replica required for the 4 nodes SMR(State Machine Replication) to work?

1 point

- ☐ 4
- ☐ 3
- ☐ 2
- ☒ 1

Yes, the answer is correct.

Score: 1

Accepted Answers:

1

5) Byzantine Fault Tolerance: To tolerate t failures, we need how many replicas?

1 point

- ☐ $t+1$
- ☐ $2t+1$
- ☒ $3t+1$
- ☐ t

Yes, the answer is correct.

Score: 1

6) In SMR, If below given is the state what will be the final value?

1 point

Initially and replica have $x = 3$,

r0 -> make $x = 10$

r1 -> make $x = 30$

Node 1

Req. CUID UID

r0	1.1	2.4
----	-----	-----

r1	2.1	2.2
----	-----	-----

Node 2

Req. CUID UID

r0	1.2	2.4
----	-----	-----

r1	2.2	2.2
----	-----	-----

Node 3

Req. CUID UID

r1	1.3	2.2
----	-----	-----

r0	2.3	2.4
----	-----	-----

Node 4

Req. CUID UID

r1	1.4	2.2
----	-----	-----

r0	2.4	2.4
----	-----	-----

- ☐ $x = 3$
- ☒ $x = 10$
- ☐ $x = 30$
- ☐ cannot be determined

Yes, the answer is correct.

Score: 1

Accepted Answers:

Accepted Answers:

x = 10

7) Non-deterministic code will **not** lead to fork in distributed ledger?

1 point

- ☒ false
- ☐ true

Yes, the answer is correct.

Score: 1

Accepted Answers:

false

8) Which of the following is/are drawback of order execute paradigm?

1 point

- ☐ Sequential execution
- ☐ Non-deterministic code
- ☐ Confidentiality of execution
- ☒ All of the above

Yes, the answer is correct.

Score: 1

Accepted Answers:

All of the above

9) Does all peers/nodes in order execute paradigm need to execute all the transaction?

1 point

- ☒ Yes
- ☐ No

Yes, the answer is correct.

Score: 1

Accepted Answers:

Yes

10) In Ethereum, How we handle the problem of infinite loop/execution of transaction?

1 point

- ☐ Solidity do not allow loops

- ☐ by charging gas for each transaction
- ☒ ethereum kill/abort transaction after timeout
- ☐ not possible

No, the answer is incorrect.

Score: 0

Accepted Answers:

by charging gas for each transaction