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Unit 7 - Week 4 : Unit 4

Assignment 4

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment. **Due on 2019-02-27, 23:59 IST.**

1) Suppose, a network of 5 nodes uses RAFT consensus protocol. The state of the node logs is as follows: ***1 point***

N1: 1.1, 3.1, 3.2
N2: 1.1, 2.1
N3: 1.1
N4: 1.1, 3.1
N5: 1.1, 1.2

Where 1.2 represents the 2nd log from the 1st term. The system is searching for a new leader. Is it possible for any node to execute the transaction in log entry 3.1?

- Only possible by node N1
- Only possible by node N4
- Possible for node N1 and N4
- Impossible

No, the answer is incorrect.
Score: 0

Accepted Answers:
Impossible

2) In the previous problem, is there any chance that the transaction of 1.2 committed in future? ***1 point***

- Yes irrespective of any node as the leader
- Yes if N5 becomes the next leader
- No

- [ ] PAXOS
- [ ] RAFT
- [ ] Byzantine General Model
- [ ] Practical Byzantine General Model

No, the answer is incorrect.
Score: 0

Accepted Answers:
PAXOS
RAFT
Byzantine General Model
Practical Byzantine General Model

4) You have deployed 4-nodes at your company for performing your task in a distributed manner. Although you consider that machine failure (fully failed) is more effective than the compromised failure, you use BFT model. But somehow an attacker compromises one node and simultaneously another node is permanently failed. In this situation, does your system correctly work? ***1 point***

- ( ) Yes with the remaining nodes
- ( ) Yes with all the nodes
- ( ) No

No, the answer is incorrect.
Score: 0

Accepted Answers:
No

5) You are planning to deploy a system which will work in a distributed environment. Based on the system requirement, you need some kind of node identity and fixed size message content representation. However, any node can transfer the message of any size. Which of the following consensus protocol is extremely suitable for your system? ***1 point***

- ( ) PAXOS
- ( ) RAFT
- ( ) BFT
- ( ) PBFT

No, the answer is incorrect.
Score: 0

Accepted Answers:
PBFT

6) In an asynchronous environment with at most f faulty nodes, the minimum number of the similar response needed for concluding the decision is: ***1 point***

- ( ) 3f+1
- ( ) 2f+1
- ( ) f+1
- ( ) f

No, the answer is incorrect.
Score: 0

Accepted Answers:

f+1

7) How does the blockchain model for business differ from bitcoin? **1 point**

- [ ] The blockchain based business model uses the append-only system for storing record whereas bitcoin uses the update-only system.
- [ ] The blockchain based business model provides user-specific accessibility and data security whereas bitcoin only supports the later part.
- [ ] Anyone can join the bitcoin network, but only permissioned entities join the enterprise network.

No, the answer is incorrect.
Score: 0

Accepted Answers:
The blockchain based business model provides user-specific accessibility and data security whereas bitcoin only supports the later part.
Anyone can join the bitcoin network, but only permissioned entities join the enterprise network.

8) Suppose, you are planning to integrate your company's business processes with a blockchain-based platform. What are key benefits you would highlight to your business for why a blockchain-based system will be useful? **1 point**

- [ ] The model is used internally to the company so it doesn't have any risk of fraud.
- [ ] Blockchain helps automate process and interactions with other businesses, thereby reducing time for operations.
- [ ] It helps eliminate or reduce the cost of intermediaries.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Blockchain helps automate process and interactions with other businesses, thereby reducing time for operations.
It helps eliminate or reduce the cost of intermediaries.

9) You are planning to deploy a blockchain solution for your company. For deciding the proper business logic and the transaction format, you need: **1 point**

- ( ) Blockchain Architect
- ( ) Blockchain Developer
- ( ) Blockchain Network Operator
- ( ) Blockchain User

No, the answer is incorrect.
Score: 0

Accepted Answers:
Blockchain Architect

10) The data structure World state is used for storing: **1 point**

- ( ) the output of all the transactions
- ( ) the most recent version of the state operated on by transactions
- ( ) all the information of the recent transactions
- ( ) all the information of the transactions

No, the answer is incorrect.

Score: 0

Accepted Answers:

the most recent version of the state operated on by transactions

Previous Page End