Exam C1000 – 068 Foundations of IBM Blockchain Platform V2

1. Business networks today are often inefficient because each organization keeps its own record of the transactions it makes, which can lead to disputes.

What specific technology does blockchain provide to improve the situation?

A. a web portal
B. a shared ledger
C. a batch processor
D. a central database

2. What are three concepts that apply to an enterprise blockchain?

A. Finality
B. Provenance
C. Immutability
D. Independence
E. Repeatability
F. Artificial Intelligence

3. What is a characteristic that distinguishes an enterprise blockchain from a public blockchain?

A. immutability on the ledger
B. fully decentralized model
C. the participants can be easily identified
D. automatic privacy and confidentiality of data

4. Why was the Hyperledger Fabric project created?

A. to develop blockchains for the enterprise
B. to develop blockchain consensus algorithms

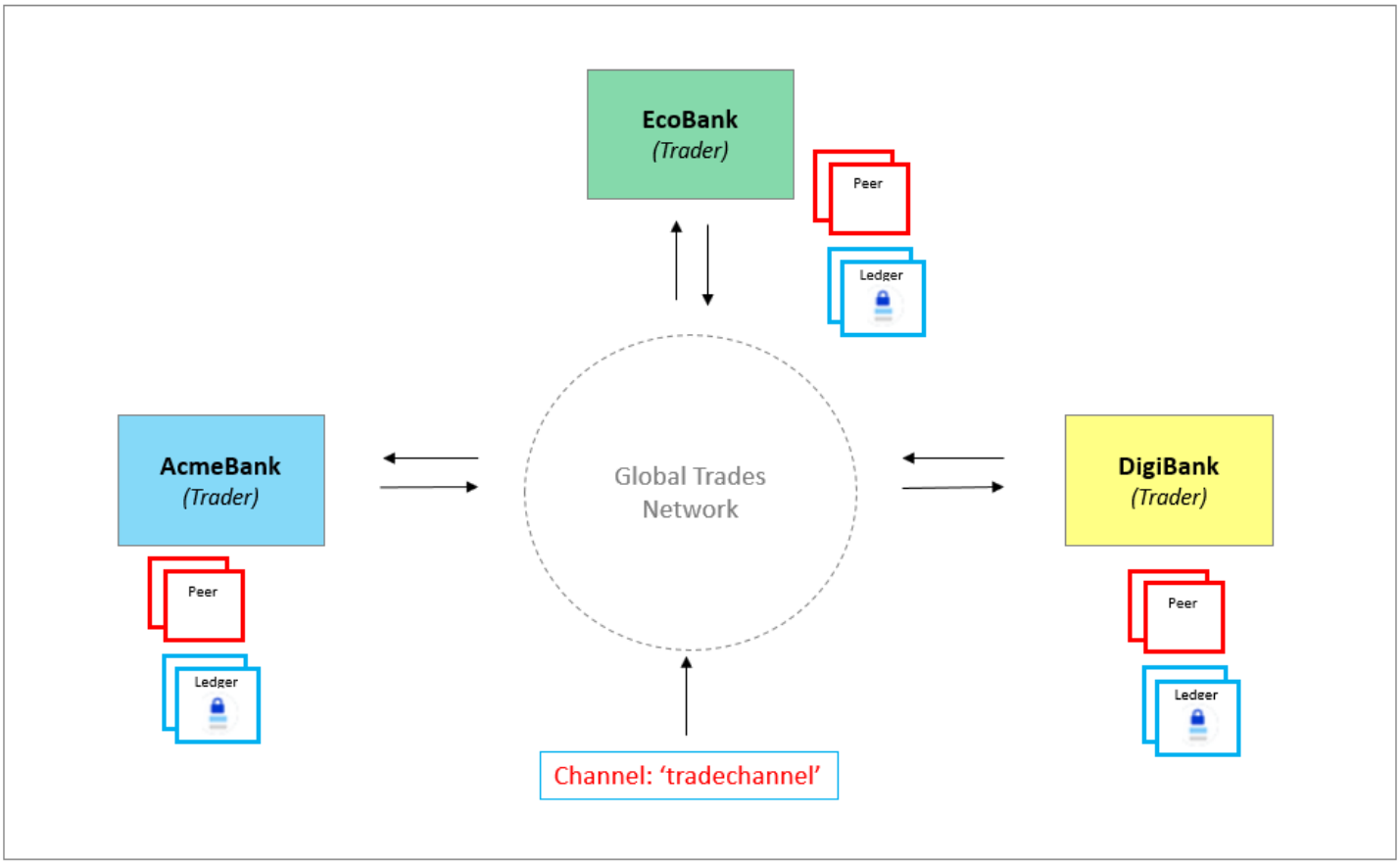
C. to fill the gap between databases and Bitcoin
D. to centralize blockchain on cloud for performance

5. What is one method for applying data privacy between two organizations within a larger Hyperledger Fabric blockchain network where all organizations share the same channel?

A. Use the Hyperledger Fabric private data collections feature.
B. Define a set of authorized peers to control privacy; this set can be obtained using Hyperledger Fabric's service discovery feature.
C. Add logic to the smart contract that checks the organization's identity so that only they can access the data on the channel ledger.
D. Use the Hyperledger Fabric endorsement policies feature, configure TLS for data in transit between client applications and Fabric nodes, and configure TLS between Fabric nodes.

6. In the Global Trades Network blockchain network shown, the consortium has agreed that any two organizations from the three present, must endorse transactions before they are committed to the tradechannel ledger. Furthermore, each organization has two endorsing peers on the channel, for failover purposes.

How many peers are recommended to have the trading smart contract installed in this scenario?



A. 1
B. 2
C. 4
D. 6

7. Which three non-functional requirements (NFR) are affected by adding additional peers to an organization in a Hyperledger Fabric network?

A. more channels can be created
B. scalability of smart contract queries
C. peers can be made more highly available
D. client applications can be made more resilient
E. more storage is available to record transactions
F. the ordering service can be recovered from a disaster

8. When designing a smart contract transaction to process large

files, where should the files be stored?

A. Directly inside the world state, similar to other assets.
B. In the submitting client application, with a hash of the file stored in the world state.
C. It should not be stored at all as large files should not be processed by a smart contract.
D. In a separate data store, with a link or a reference to the file stored in the world state along with a hash.

9. While advising a client whether a use-case is appropriate for IBM Blockchain Platform, what are two good questions to ask?

A. What assets are involved in the transactions?
B. Who are the potential organizations in the network?
C. What are the data validation rules for the fields when inputting data?
D. What networking protocol will be required between the peers in the network?
E. What is the expected CPU power of the mobile device the application will run on?

10. A client is developing a blockchain solution using IBM Blockchain Platform. They have a question on the recommended practices for smart contract development. Where should they start?

A. IBM Support
B. an IBM sales representative
C. the IBM Blockchain development team
D. the IBM Blockchain Platform documentation

11. What is the purpose of the Fabric Gateways view in the IBM Blockchain Platform VS Code extension?

A. creating a blockchain network
B. discovering a blockchain network
C. connecting to a blockchain network
D. joining an organization to a blockchain network

12. When an organization creates a new peer, they can choose the

type of world state database the peer will use. What should the organization administrator consider when choosing the world state database for the new peer?

A. The peer must use the same world state database as the existing ordering service.
B. The administrator can choose different world state database options for each channel the peer joins.
C. The world state database must be the same for the new peer as any existing peers on the same channel.
D. The peer can use any of the available world state options, independently of what other organizations and peers are already using.

13. What are two roles of a Membership Service Provider (MSP) within an IBM Blockchain Platform network?

A. To provide a mechanism for user authentication.
B. To provide mechanisms and protocols for validating certificates.
C. To provide a web user interface to log in to the blockchain network.
D. To provide a command line interface to log in to the blockchain network.
E. To provide a secure mechanism for charging membership fees within the blockchain network.

14. A business network is moving their existing blockchain network to the latest IBM Blockchain Platform (IBP). They wish to re-use as many assets and components as possible.

All other things being equal, rank the following scenarios from simplest to most complex.

A. From a blockchain application running on the public Ethereum mainnet.
B. From an identically versioned standalone Hyperledger Fabric network running on Microsoft Azure.
C. From a back-level major version of a standalone Hyperledger Fabric network running on Microsoft Azure.
D. From a back-level version of IBP.

15. A peer deployed in an IBM Blockchain Platform network requires additional CPU. How can the CPU for the peer be increased?

A. The CPU allocation for the peer will increase automatically as required.
B. The CPU allocation for the peer cannot be changed once the peer has been created.
C. Change the resource allocation for the peer using the IBM Blockchain Platform web console.
D. Change the resource allocation for the peer using a Hyperledger Fabric peer command.

16. When moving to a new version of a smart contract, what must remain the same throughout the process?

A. the smart contract name
B. the smart contract owner
C. the smart contract endorsement policy
D. the smart contract instantiation policy

17. When deploying IBM Blockchain Platform on to a Kubernetes platform, in what order should these Kubernetes resource deployments take place?

A. PodSecurityPolicy (ibp-psp.yaml)
B. ClusterRole (ibp-clusterrole.yaml)
C. ClusterRoleBinding (ibp-clusterrolebinding.yaml)
D. Operator (ibp-operator.yaml)
E. Console (ibp-console.yaml)

18. A new organization needs to run a new peer on IBM Blockchain Platform. This peer will connect to an existing ordering service managed by another organization. What must be done before adding the new peer?

A. The new organization configures the new peer to automatically join the ordering service.
B. The new organization adds itself to the existing consortium for the ordering service.

C. The administrator for the ordering service adds the new organization to the consortium.
D. The consortium administrator must create the credentials of the new organization's administrator.

Answer Key on the next page.

Answer Key:

1. B
2. ABC
3. C
4. A
5. A
6. D
7. BCD
8. D
9. AB
10. D
11. C
12. C
13. AB
14. D, B, C, A
15. C
16. A
17. A, B, C, D, E
18. C