# 区块链题库(绝密)

# 第一套

1. What does the "consensus" quality of service provide to blockchain?

An agreement that a transaction occurred.

2. Which of the following fact(s) about business networks is/are true?

All of these facts are true.

3. Why might a database be considered inferior to a blockchain?

Database administrators require more trust.

4. What does the "provenance" quality of service provide to blockchain?

A history of transactions.

- 5. Which of the following are common characteristics of a blockchain network?(多选)
- a. The novel Blockchain architecture gives participants the ability to share a le dger, which is generally updated every 20 seconds automatically and constantly to ensure that the information is kept up to date.
- b.Cryptography is used to ensure that network participants see only the parts of the ledger that are relevant to them, and that transactions are secure, authe nticated and verifiable.
- d.Blockchain allows the contract for asset transfer to be embedded in the transaction database determining the conditions under which the transaction can occur.
- 6.Business networks make up their markets, which can be:

Public or Private among participants.

7. Which of the following blockchain use-cases is an example of a compliance ledger pattern? Real-time view of compliance, audit & risk data. 8. Which of the following blockchain use cases is an example of a Consortium Shared Ledger pattern? Sharing of key reference data. 9. Which of the following are common requirements for business identity? All of the above. 10. Which of the following is a feature of Bitcoin that is also found in Hyperledger Fabric? Open Source. 11. What do blockchain registries enable? Network founders to publish network and joining details. 12. Which of the following best describe Digital Currencies? None of the above. 13. Cryptocurrencies sometimes backed by governments are government-regulated banks. True.

14. What do Bitcoin, Ether, and Ripple all have in common?

15. Which of the following statements is true for the current Hyperledger?

Are well-known digital currencies

All of the above.

16. What is the aim of the Hyperledger Project?

To advance blockchain technologies for business.

17. Which of the following frameworks is designed to be simple and easy to incorporate into infrastructural projects?

Hyperledger Iroha.

18. The Hyperledger project is made up of multiple projects that are:

All of these.

19. Which of the following Hyperledger tools provides visualization interfaces for users to explore blockchain data and information?

Hyperledger Explorer.

20.In a self-sovereign identity blockchain, what is a verifiable credential?

Cryptographically backed statements of truth.

21. Which of the following is NOT a pillar that underpins a successful blockchain ecosystem?

Food Trust.

22.In the digital identities domain, blockchain enables/provides?

consensus,scale,trust

23.In a reference architecture, which layer would you use to deploy a blockchain solution:

NetWork layer.

24.In TradeLens which challenges, inherent in collaborating across a distributed, fragmented supply chain ecosystem, does blockchain addresses?

All of these.

25.In a permissioned blockchain network, which participants have an "Identity" in the blockchain network?

All authorized participants and components.

26. [True/False] Legal Contracts and models are mapped automatically to Chaincode.

选择一项:

对

错 T

27. The mapping of business concepts into technical concepts is called?

选择一项:

- a. Contracts
- b. Assets
- c. Transactions
- d. Modeling T
- e. Business Networks
- 28. Which of the following concepts is best illustrated in this example?

```
"commercialPaper":{
```

"id": "string",

"issuer": "string",

"owner": "string",

"faceValue": "integer",

"maturityDate": "date" }

选择一项:

- a. Physical asset
- b. Asset model definition T
- c. Asset instance
- d. World state
- 29. For Hyperledger Fabric, these three artifacts can be collectively thought of as the smart contract:

选择一项:

- a. Users, Model, Chaincode
- b. Legal Contract, Model, Chaincode
- c. Certificate Authority, Legal Contract, Chaincode
- d. Chaincode, Business Networks, Model T
- 30. In a UTXO-based payments blockchain, Matt uses an input balance of \$100 to send \$40 to Dave. What is the value of the UTXO for this transaction? 选择一项:

- a. \$100
- b. \$40
- c. \$60 T
- d. \$0
- 31. [True/False] The hash chain, fundamentally, is the data structure behind blockchain.

选择一项:

对

错 T

- 32. What is the first block in a blockchain called?
- a. Root node
- b. Primordial block
- c. Merkle root
- d. Genesis block T
- 33. Looking at the following hash chain output, which data elements, if any, might have been tampered with?

#### 选择一项:

- a. The hash chain does not appear to have been tampered with
- b. Data 'abc' appears to have been tampered with.
- c. Data 'def' appears to have been tampered with.
- d. Data 'ghi' appears to have been tampered with.
- 34. Which of the following is an advantage of a Merkle tree over a hash chain? 选择一项:
- a. A Merkle tree does not use hash functions
- b. A Merkle tree does not require root nodes
- c. A Merkle tree uses a linear search
- d. A Merkle tree makes tampering easier to identify T
- 35. Which of the following is a characteristic of a blockchain-based on Hyperledger Fabric?

选择一项:

- a. Permissioned
- b. System of record
- c. Every participant has a unique identity
- d. Participants have identities that link them to transactions
- e. All of the above
- 36. Which of the following parts of a Hyperledger Fabric transaction would contain the before and after states of the transaction?

选择一项:

a. Name

- b. ID
- c. Proposal
- d. Response T
- 37. In the Hyperledger Fabric client API, what is the difference between submitTransaction() and evaluateTransaction()?
- a. submitTransaction() will send the transaction to the ordering service, whereas evaluateTransaction() will not. T
- b. submitTransaction() can only be used for transactions with no input parameters; evaluateTransaction() can be used for multiple input parameters.
- c. submitTransaction() will send the transaction to a single peer; evaluateTransaction() will send to multiple peers.
- d. submitTransaction() is intended for private data collections; evaluateTransaction() is intended for channel-wide data.
- 38. Which of the following facts about gateways is true? 选择一项:
- a. Gateways require the client application to understand the network topologyl
- b. A client application can only connect to one gateway at a time
- c. Gateways remove the need for wallets
- d. Gateways can dynamically discover a network
- 39. Consider a transaction to transfer the ownership of an asset from ORG1 to ORG2. ORG3 is also part of the network. Who would you expect to endorse this transaction?

选择一项:

- a. ORG1 only
- b. ORG2 only
- c. ORG1 and ORG2 T
- d. ORG1, ORG2 and ORG3
- 40. Which blockchain type can have no access restrictions?

选择一项:

- a. Public T
- b. Private
- c. Permissioned Ledger
- d. Internal data-share network
- 41. What are the differences between Proof of Work and Proof of Stake? 选择一项:
- a. Proof of Stake includes the possibility of mining a block and depends upon the amount of work a miner does
- b. Proof of Work takes more energy than Proof of Stake
- c. Proof of Stake requires that stakeholders validate new block by but utilizing their share of coin on the network
- d. All of the above
- e. None of the above T
- 42. Which of the following tools are open-source blockchain platforms? 选择一项:

- a. Hyperledger Fabric
- b. Ethereum
- c. Quorum
- d. Ripple
- e. All of the above T
- f. None of the above
- 43. Which of the following is not a key component of a blockchain ecosystem? 选择一项或多项:
- a. Node application
- b. Computer laptop T
- c. Shared ledger
- d. Consensus algorithm
- e. Virtual Machine
- 44. Which of the following are three different types of Nodes 选择一项:
- a. Client Node, Peer Node, Orderer Node T
- b. Peer Node, Child Node, Client Node
- c. Orderer Node, Parent Node, Peer Node
- d. Parent Node, Child Node, Orderer Node
- 45. Which of the following is NOT an IBM Blockchain platform available today? 选择一项:
- a. Providing blockchain-enabled greeting cards and small gifts to delivery workers T
- b. IBM Food Trust, bringing trust and transparency to the food supply
- c. Trade Lens, delivering greater visibility to the global supply chain
- d. We-Trade, providing trade finance with blockchain capabilities
- e. True Tickets, verifying tickets and bring artists closer to fans
- 46. IBM first began deploying prototype blockchain technologies: 选择一项:
- a. In 1964, to accompany NY World's Fair introduction of the IBM System 360 and Selectric Typewriter
- b. In 1969, as part of computational and transactional support for the Apollo moon missions
- c. In 2000, to permit "Y2K" backup in the event of systemic network failures
- d. In 2015, to provide capabilities for emerging business needs and opportunities T
- 47. Which of the following is a characteristic of the IBM Blockchain Platform? 选择一项:
- a. Can govern and operate ledgers, channels, identities, and other assets in one intuitive console T
- b. Must be deployed with all associated components to be operational
- c. Has no support for highly available environments and disaster recovery scenarios
- d. All of the above

- 48. Chains of blocks are stored in the form of which of the following? 选择一项:
- a. World state database
- b. Transaction logs T
- c. Hashtable
- d. All of the above
- 49. In a business implementation such as IBM Blockchain Platform, typically: 选择一项:
- a. Participants are fully anonymous, and transactions are visible to the public
- b. Participants are fully anonymous, and transactions are visible to authorized parties
- c. Participants are verified, and transactions are visible to the public
- d. Participants are verified, and transactions are visible to authorized parties
- 50. How many channels can you have in a Blockchain 选择一项:
- a. One
- b. Two
- c. Three
- d. Unlimited T

#### 第二套:

Which of the following items are examples of intangible assets? 下列哪一项是无形资产的例子?

All of these can be intangible assets

Which of the following are common characteristics of a blockchain network? 以下哪一个是块链网络的共同特征?

Which of the following blockchain use-cases is an example of a compliance ledger pattern? 以下哪个区块链用例是遵从分类账模式的示例?

Real-time view of compliance, audit & risk data

Which of these features does blockchain explicitly provide? 区块链显式地提供了这些特性中的哪一个?

Cryptographic proof

What does the "consensus" quality of service provide to blockchain? "共识"的服务质量能为区块链提供什么?

Agreement that a transaction occurred

Which of the following fact(s) about business networks is/are true? 关于商业网络的下列哪个事实是真实的?

All of these facts are true

(存疑)Which of the following are common requirements for business identity? 以下哪一项是商业身份的共同要求?

All of the above

Why might a database be considered inferior to a blockchain? 为什么数据库会被认为不如区块链呢?

Database administrators require more trust

What does the "provenance" quality of service provide to blockchain? "出处"的服务质量能为区块链提供什么?

History of transactions

(存疑)What do Bitcoin, Ether, and Ripple all have in common? 比特币、以太和Ripple 都有什么共同点?

Are typically interoperable

When considering "token-based" blockchains vs. "policy-based" blockchains, which of the following is/are seen in token blockchains? 当考虑"基于令牌的"块链与"基于策略的"块链时,下面是/在令牌块链中看到的?

Which of the following statements is true for the current Hyperledger? 对于当前的超级分类账,下列哪一种陈述是正确的?

All of the above

What do blockchain registries enable? 区块链注册中心能实现什么?

Network founders to publish network and joining details

(存疑)[True/False] Cryptocurrencies are sometimes backed by governments or government-regulated banks. [真/假]密码货币有时由政府或 银行监管。

True

Which of the following best describe Digital Currencies: 以下哪一种最能描述数字货币:

None of the above

What is the aim of the Hyperledger Project? 超级分类账项目的目标是什么?

To advance blockchain technologies for business

The Hyperledger project is made up of multiple projects that are: 超级分类账项目由以下多个项目组成:

All of these

Which of the following statements about the Hyperledger project membership is true? 关于超级分类账项目成员资格的下列哪一项声明是正确的?

Only members of the Linux Foundation can join the project

Which of the following frameworks is designed to be simple and easy to incorporate into infrastructural projects? 以下哪一种框架被设计成简单且易于合并基础设施项目?

In TradeLens which challenges, inherent in collaborating across a distributed, fragmented supply chain ecosystem, does blockchain addresses? 在 TradeLens 中,这是跨分布式、零碎的协作所固有的挑战供应链生态系统,区块链地址吗?

In a self-sovereign identity blockchain, what is a verifiable credential? 在一个自我主权的身份封锁链中,什么是可验证的证书?

In the digital identities domain, blockchain enables/provides? 在数字标识领域, 块链启用/提供?

(存疑)Of the following options, which of these is the best use-case for blockchain? 在以下选项中,哪个是区块链的最佳用例?

Tracking a food supply chain

Which of the following is NOT a pillar that underpins a successful blockchain ecosystem? 以下哪一项不是支撑成功的区块链生态系统的支柱?

#### Food Trust

[True/False] Legal Contracts and models are mapped automatically to Chaincode. [真/假]法律合同和模型自动映射到链码。

#### False

试题 26 还未作答 P 标记试题

Must organizations in the business network have at least one peer in the blockchain network?

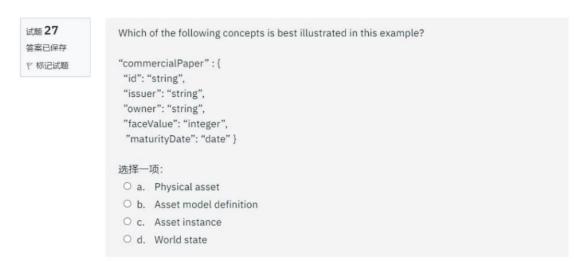
#### 选择一项:

- a. No; larger organizations have multiple peers and smaller organizations might not have
- O b. Yes; there is a 1:1 mapping between organizations and peers
- c. Yes; smaller organizations must own at least one peer but larger organizations may have several
- d. No; while an organization can have at most one peer, smaller organizations might not have any.

Must organizations in the business network have at least one peer in the blockchain network?

- O a. No; larger organizations have multiple peers and smaller organizations might not have any.
- O b. Yes; there is a 1:1 mapping between organizations and peers

- O c. Yes; smaller organizations must own at least one peer but larger organizations may have several
- O d. No; while an organization can have at most one peer, smaller organizations might not have any.



Which of the following concepts is best illustrated in this example?

- O a. Physical asset
- O b. Asset model definition
- O c. Asset instance
- O d. World state



For Hyperledger Fabric, these three artifacts can be collectively thought of as the smart contract:

- O a. Users, Model, Chaincode
- O b. Legal Contract, Model, Chaincode
- O c. Certificate Authority, Legal Contract, Chaincode
- O d. Chaincode, Business Networks, Model



World State is just a database where assets can be created, modified, and delete





[True/False] The hash chain, fundamentally, is the data structure behind blockchain.





What is the first block in a blockchain called?

- O a. Root node
- O b. Primordial block
- O c. Merkle root
- <mark>O d. Genesis block</mark>

试题 32 答案已保存 下标记试题

```
Looking at the following hash chain output, which data elements, if any, might have been tampered with?

abc --> def+7859 --> ghi+3785 --> X

h(abc)= h(def+7859)= h(ghi+3785)=
7859 2957 5783

选择一项:

a. The hash chain does not appear to have been tampered with.

b. Data 'abc' appears to have been tampered with.

c. Data 'def' appears to have been tampered with.

d. Data 'ghi' appears to have been tampered with.
```

Looking at the following hash chain output, which data elements, if any, might have been

```
tampered with?
abc -> def+7859 -> ghi+3785 ··> X
h(abc)= h(def+7859)= h(ghi+3785)=
7859 2957 5783
选择一项:
```

- O a. The hash chain does not appear to have been tampered with.
- O b. Data 'abc' appears to have been tampered with.
- O c. Data 'def' appears to have been tampered with.
- O d. Data 'ghi' appears to have been tampered with.

试题 33 还未作答 V 标记试题

Which of the following is an advantage of a Merkle tree over a hash chain?

A. Merkle tree does not use hash functions

B.A Merkle tree does not require root nodes

C.A Merkle tree uses linear search

D.A Merkle tree makes tampering easier to identify

试题 34 还未作答 F 标记试题 In a UTXO-based payments blockchain, Matt uses an input balance of \$100 to send \$40 to Dave. What is the value of the UTXO for this transaction?

选择一项:

a. \$100
b. \$40
c. \$60
d. \$0

In a UTXO-based payments blockchain. Matt uses an input balance of \$100 to send \$40 to Dave. What is the value of the UTXO for this transaction?





Which of the following parts of a Hyperledger Fabric transaction would contain the before and after states of the transaction?

#### 选择一项:

- O a. Name
- O b. ID
- O c. Proposal
- O d. Responše

Which of the following parts of a Hyperledger Fabric transaction would contain the before and after states of the transaction?

# Name,id



In the Hyperledger Fabric client API, what is the difference between submitTransaction() and evaluateTransaction()?

#### 选择一项:

- a. submitTransaction() will send the transaction to the ordering service, whereas evaluateTransaction() will not.
- b. submitTransaction() can only be used for transactions with no input parameters;
   evaluateTransaction() can be used for multiple input parameters.
- c. submitTransaction() will send the transaction to a single peer; evaluateTransaction() will send to multiple peers.
- d. submitTransaction() is intended for private data collections; evaluateTransaction() is intended for channel-wide data.

In the Hyperledger Fabric client API, what is the difference between submitTransactionO and evaluateTransactionQ?

A. submitTransactionO will send the transaction to the ordering service, whereas evaluateTransactionO will not. B.submitTransactionO can only be used for transactions with no input parameters; evaluateTransactionO can be used for multiple input parameters.

C.submitTransactionO will send the transaction to a single peer; evaluateTransactionO will send to multiple peers. D.submitTransactionO isjntended for private data collections; evaluateTransactionO is intended for channel-wide data.



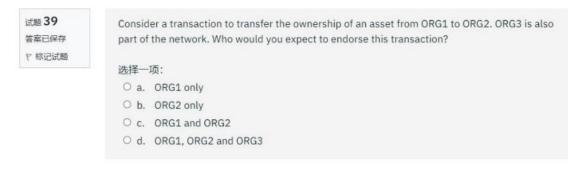
Which of the following is a characteristic of a blockchain-based on Hyperledger Fabric?

### E.all of the above



Which of the following facts about gateways is true?

- O a. Gateways require the client application to understand the network topology
- O b. A client application can only connect to one gateway at a time
- O c. Gateways remove the need for wallets
- O d. Gateways can dynamically discover a network



Consider a transaction to transfer the ownership of an asset from 0RG1 to 0RG2. 0RG3 is also

part of the network. Who would you expect to endorse this transaction?

O a. ORG1 only

O b. ORG2 only

O c. ORG1 and ORG2

O d. ORG1, ORG2 and ORG3

试题 40 答案已保存 F 标记试题

Which of the following are three different types of Nodes

选择一项:

- O a. Client Node, Peer Node, Orderer Node
- O b. Peer Node, Child Node, Client Node
- O c. Orderer Node, Parent Node, Peer Node
- O d. Parent Node, Child Node, Orderer Node

Which of the following are three different types of Nodes

- O a. Client Node, Peer Node, Orderer Node
- O b. Peer Node, Child Node, Client Node
- O c. Orderer Node, Parent Node, Peer Node
- O d. Parent Node, Child Node, Orderer Node

试题 41 还未作答 P 标记试题

Which of the following best describes the IBM Blockchain Platform?

选择一项:

- O a. A set of tools for building, operating, and growing blockchain networks
- O b. Designed to make it easier for blockchain practitioners to get started with the technology
- O c. Is fully heterogeneous; different components can be deployed in different environments
- O d. All of the above

Which of the following best describes the IBM Blockchain Platform?

O a. A set of tools for building, operating, and growing blockchain

#### networks

- O b. Designed to make it easier for blockchain practitioners to get started with the technology
- O c. Is fully heterogeneous; different components can be deployed in different environments
- O d. All of the above

试题 42 还未作答 P 标记试题

Which of the following is NOT an IBM Blockchain platform available today?

选择一项:

- O a. Providing blockchain-enabled greeting cards and small gifts to delivery workers
- O b. IBM Food Trust, bringing trust and transparency to the food supply
- O c. Trade Lens, delivering greater visibility to the global supply chain
- O d. We-Trade, providing trade finance with blockchain capabilities
- O e. True Tickets, verifying tickets and bring artists closer to fans

Which of the following is NOT an IBM Blockchain platform available today?

O a. Providing blockchain-enabled greeting cards and small gifts to

## delivery workers

- O b. IBM Food Trust, bringing trust and transparency to the food supply
- O c. Trade Lens, deli\fering greater visibility to the global supply chain
- O d. We-Trade, providing trade finance with blockchain capabilities
- O e. True Tickets, verifying tickets and bring artists closer to fans

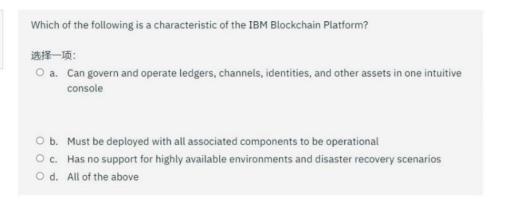




How many channels can you have in a Blockchain

### D.no limit





Which of the following is a characteristic of the IBM Blockchain Platform?

O a. Can govern and operate ledgers, channels, identities, and other assets

## in one intuitive console

- O b. Must be deployed with all associated components to be operational
- O c. Has no support for highly available environments and disaster recovery scenarios
- O d. AU of the above

试题 45 还未作答 V 标记试题

Which	blockchain type can have no access restrictions?
选择一	<b>ज</b> :
O a.	Public
O b.	Private
O c.	Permissioned Ledger
O d.	Internal data-share network

Which blockchain type can have no access restrictions?

#### O a. Public

- O b. Private
- O c. Permissioned Ledger
- O d. Internal data-share network



46Which of the following implements a consensus service?

- O a. Endorsing nodes
- O b. Committer nfedes

## O c. Ordering nodes

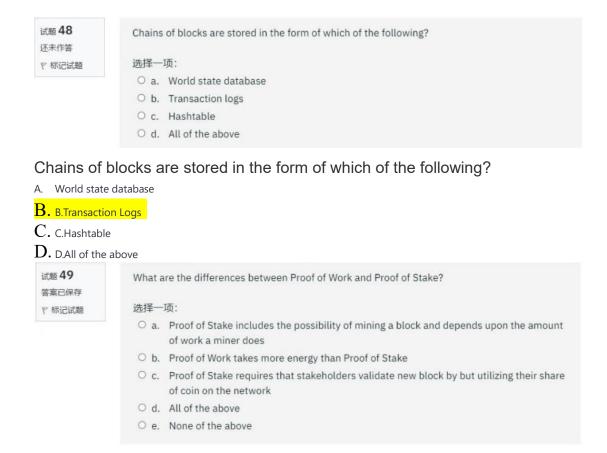
#### O d. MSP nodes



47lf properly deployed, IBM Blockchain Platform can be operated:

- O a. On the IBM Cloud
- O b. On Hybrid multi-clouds
- O c. On a private cloud
- O d. Off-cloud, on premises

O e. All of the above



What are the differences between Proof of Work and Proof of Stake?

O a. Proof of Stake includes the possibility of mining a block and depends upon the amount of work a miner does

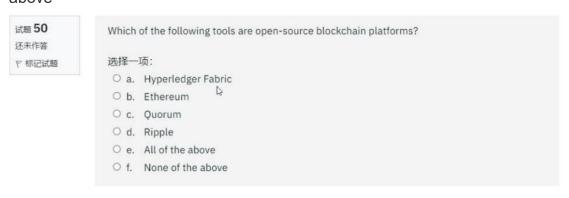
O b. Proof of Work takes more energy than Proof of Stake

O c. Proof of Stake requires that stakeholders validate new block by but

utilizing their share of coin on the network

O d. All of the above

Oe.None of the above



Which of the following tools are open-source blockchain platforms?

# O a. Hyperledger Fabric

Ob. Ethereum "

O c. Quorum

O d. Ripple

O e. AU of the above

Of. None of the above

# 第三套:

Which of the following items are examples of intangible assets?

O a. Brand recognition

O b. Patents for intellectual property

O c. Songs, as in digital music

O d. All of these can be intangible assets

Which of these features does blockchain explicitly provide?

O a. Trust

b. Cryptographic proof

O c. A TCP/IP substitute

O d. A Reputation

11-15:

Which of the following best describe cryptocurrencies?

选择一项:

O a. Cannot be regulated by national or internal laws

O b. Can only be used for black market/ illegal purchases

O c. It may either used anonymously or can be used in a manner that provide s user identity

O d. Are never accepted by legitimate businesses

When considering "token-based" blockchains vs. "policy-based" blockchains, which of the following is/are seen token blockchains?

选择一项:

- O a. Identity is anonymous; anyone can have tokens
- O b. The entire ledger is generally open to all participants
- O c. Incentive mechanism is built into the platform
- O d. All of these

The Hyperledger project is made up of multiple projects that are:

选择一项:

- O a. Open-source
- O b. Open standards
- O c. Open governance
- O d. All of these

Which of the following statements about the Hyperledger project membership is true?

- a. All organizations pay the same general membership fee
- B.Only members of the Linux Foundation can join the project
- c. Premier members can participate in the Technical Steering Committee for the duration of their membership
- d. Members must actively contribute to the projects

What is the aim of the Hyperledger Project?

- O a. To advance blockchain technologies for business
- O b. To build one blockchain implementation for all use-cases
- O c. To unify the world's cryptocurrencies
- O d. To produce a specification for blockchain

Of the following options, which of these is the best use-case for blockchain?

- O a. Secure document storage
- O b. Tracking a food supply chain
- O c. Vacation tracking tool
- O d. Tracking children or pets

Must organizations in the business network have at least one peer in the bloc kchain network?

- O a. No; larger organizations have multiple peers and smaller organizations might not have any.
- O b. Yes; there is a 1:1 mapping between organizations and peers
- O c. Yes; smaller organizations must own at least one peer but larger organiz ations may have several
- O d. No; while an organization can have at most one peer, smaller organizatio

ns might not have any.

26.[True/False] World State is just a database where assets can be created, modifed, and deleted.

答案:Ture

27. For Hyperledger Fabric, these three artifacts can be collectively thought of as the smart

对于超分类帐结构,这三个工件可以被集体认为是智能的 contract:D

- O a. Users, Model, Chaincode
- Ob. Legal Contract, Model, Chaincode
- O c. Certificate Authority, Legal Contract, Chaincode
- O d. Chaincode, Business Networks, Model

超分类帐结构是一种合同,其中包括用户、合同法律制度和企业网络。 因此,这三个工件可以被集体认为是智能的,选项 D 正确。

28. The mapping of business concepts into technical concepts is called? 将业务概念映射到技术概念中,这被称为? E

- O a. Contracts
- Ob. Assets
- O c. Transactions
- O d. Modeling

# O e. Business Networks

29.In a permissioned blockchain network, which participants have an "Identity" in the blockchain

network?D

在一个被允许的区块链网络中,哪些参与者在区块链网络中有一个"身份"?

- O a. Organizations
- Ob. Users
- c. System components
- O d. All authorized partiqipants and components
- 30.Looking at the following hash chain output, which data elements, if any, might have been

tampered with?<mark>A</mark>

查看以下哈希链输出,哪些数据元素如有时可能被篡改?

abc --> def+7859 --> ghi+3785 --> 
$$X$$

h(abc) = h(def+7859) = h(ghi+3785) =

7859 2957 5783

- a. The hash chain does not appear to have been tampered with.
- O b. Data'abc'appears to have been tampered with.
- O c. Data'def'appears to have been tampered with.

- O d. Data'ghi'appears to have been tampered with.
- 31.What is the first block in a blockchain called?区块链中的第一个块名叫的是什么? B
- O a. Root node
- O b. Primordial block
- O c. Merkle root
- O d. Genesis block
- 32.[True/False] The hash chain, fundamentally, is the data structure behind blockchain.

哈希链,从本质上说,就是区块链背后的数据结构。

# True

33. Which of the following is an advantage of a Merkle tree over a hash chain?

下面哪一个是默克树比哈希链的优势 C

- O a. AMerkle tree does not use hash functions
- b. AMerkle tree does not require root nodes
- O c. AMerkle tree uses a linear search
- O d. AMerkle tree makes tampering easier to identify
- 34. Which of these is a disadvantage of Proof of Work consensus?

其中哪一个是工作证明共识的缺点? C

- O a. The "nothing at stake" problem
- O b. High energy usage
- O c. There is no guard against malicious activity
- O d. The algorithm requires processor extensions
- 35. Which of the following facts about gateways is true?

以下关于网关的哪些事实是正确的? A

- O a. Gateways require the client application to understand the network topology
- O b Aclient application can only connect to one gateway at atime
- O c. Gateways remove the need for wallets
- O d. Gateways can dynamically discover a network
- 36.In the Hyperledger Fabric clent API, what is the difference between submitTransaction()and

evaluateTransaction()?A

在超分类帐结构克隆 API 中,提交交易()和评估交易()之间的区别是什么?

O a. submitTransaction() will send the transaction to the ordering service, whereas

evaluateTransaction() will not.

O b. submitTransaction()can only be used for transactions with no input parameters;

evaluateTransaction() can be used for multiple input parameters.

O c. submitTransaction()will send the transaction to a single peer; evaluateTransaction(

will send to multiple peers.

O d. submitTransaction()is ntended for private data collections; evaluateTransaction()is

intended for channel-wide data.

Answer: Hyperledger Fabric 客户端 API 中 submitTransaction () 和 evaluateTransaction (。

submitTransaction () 通常用于更新分类帐状态的事务,例如创建新资产或更新现有资产。交易首先由必要的同行背书,然后提交给订购服务,以纳入分类账。

另一方面,evaluateTransaction()用于不修改分类帐状态的查询,例如检索资产的当前值。查询在单个对等体上执行,结果返回给客户端,而不提交事务。

因此,正确的答案是 a,因为其他选项并不能准确描述 submitTransaction()和 evaluateTransaction()之间的差异。

37. Consider a transaction to transfer the ownership of an asset from ORG1 to ORG2. ORG3 is also

part of the network. Who would you expect to endorse this transaction? C

考虑一个将资产所有权从 ORG1 转移到 ORG2 的交易。ORG3 也是该网络的一部分。你希望由谁来支持这笔交易?

a. ORG1 only

O b. ORG2 only

O c. ORG1and ORG2

O d. ORG1,ORG2 and ORG3

交易的背书政策取决于网络的具体实施和规则。然而,在具有多个组织的典型区块链网络(也称为联盟区块链)中,背书政策可能需要多方背书,以确保交易的有效性和完整性。

在所描述的场景中,由于交易涉及将资产的所有权从 ORG1 转移到 ORG2,因此期望 ORG1 和 ORG2 都认可是合理的。此外,根据具体的背书政策,ORG3 也可能被要求对交易进行背书。

因此,最有可能的答案是 c.ORG1 和 ORG2。然而, d.ORG1、ORG2 和 ORG3 也是一种可能性, 具体取决于具体的实施和背书政策。

38. Which of the following parts of a Hyperledger Fabric transaction would contain the before and

after states of the transaction?超分类帐结构交易的以下哪一部分将包含交易前后的状态? D

O a. Name

Ob. ID

c. Proposal

## O d. Response

39. What is the role of a certificate authority?

证书颁发机构的角色是什么?E

- O a. Conducts transactions
- O b. Define, create and monitor the blockchain network
- O c. Creates applications and smart contracts that run on the network
- O d. Has special permission to oversee the transactions happening within a network
- O e. Issues and manages the different types of certficates required to run a permissioned

#### Blockchain

正确答案是 e。证书颁发机构(CA)负责颁发和管理数字证书,用于验证网络上用户、设备和其他实体的身份。在许可的区块链网络中,CA 通过验证参与者的身份并颁发证书授予他们访问网络的权限,在确保网络的安全性和可信度方面发挥着关键作用。CA 负责确保证书是有效和最新的,并在证书被破坏或不再需要时吊销证书。

- 40.Which of the following implements a consensus service?以下哪一项实现了共识服务? B
- O a. Endorsing nodes
- O b. Committer nodes
- O c. Ordering nodes

#### O d. MSP nodes

41.IBM first began deploying prototype blockchain technologies:

IBM 首先开始部署区块链技术的原型: A

O a.In1964,to accompany NYWorld's Fairintroduction of the IBM System 360 and

Selectric Typewriter

O b. In1969,as part of computationaland transactional support for the Apollo moon

missions

c. In 2000,to permit"Y2K"backup in the event of systemic network failures

O d. In2015,to provde capabilities for emerging business needs and opportunities

42. Which of the following tools are open-source blockchain platforms?

以下哪些工具是开源的区块链平台? E

O a. Hyperledger Fabric

O b. Ethereum

O c.Quorum

O d. Ripple

O e. Allof the above

#### Of. None of the above

- 43.Which of the following is a characteristic of the IBM Blockchain Platform?以下哪一个是 IBM 区块链平台的特点? d
- O a. Cangovern and operate ledgers, channels, identities, and other assets in one intuitive

console

- O b. Must be deployed with all associated components to be operational
- O c. Has no support for highly available environments and disaster recovery scenarios
- O d. Allof the above
- 44.Which of the following are three different types of Nodes 以下哪一种是三种不同类型的节点

## A

- O a. Client Node, Peer Node, Orderer Node
- O b. Peer Node, Child Node, Client Node
- O c. Orderer Node, Parent Node, Peer Node
- O d. Parent Node, Child Node, Orderer Node
- 45. Which of the following is NOT an IBM Blockchain platform available today?

## 以下哪一个现在还不是现有的 IBM 区块链平台? D

- O a. Providing blockchain-enabled greeting cards and small gifts to delivery workers
- O b. IBMFood Trust, bringing trust and transparency to the food supply
- O c. Trade Lens, delivering greatervisibility to the global supply chain
- O d. We-Trade, providing trade finance with blockchain capabilities
- O e. True Tickets, verifying tickets and bring artists closer to fans
- 46. How many channels can you have n a Blockchaind
- O a. One
- Ob. Two
- O c. Three
- O d. Unlimited
- 47.If properly deployed, IBM Blockchain Platform can be operated:E
- O a.On the IBM Cloud
- O b OnHybrid mutti-clouds
- O c. On a private cloud
- O d. Off-cloud,on premises
- O e. All of the above
- 48.In a business implementation such as IBM Blockchain Platform,

typically:A

O a. Participants are fully anonymous, and transactions are visible to the public

O b. Participants are fully anonymous, and transactions are visible to authorized parties

O c. Participants are verified, and transactions are visible to the public

O d. Participants are verified, and transactions are visible to authorized parties

49.

What are the differences between Proof of Work and Proof of Stake? C

O a. Proof of Stake includes the possibility of mining a block and depends upon the amount

of work a miner does

O b. Proof of Work takes more energy than Proof of Stake

c.Proof ofStake requires that stakeholders validate new block by but utilizing their share

of coin on the network

O d. All of the above

O e. None of the lbove

50. Which blockchain type can have no access restrictions?D

- O a. Public
- O b. Private
- O c.Permissioned Ledger
- d. Internal data-share network