BTA Certified Blockchain Solution Architect

1. SHA-1 is the most commonly used SHA algorithm, and produces a _____-byte hash value(size).

A. 256

B. 128

C. 32

D. 20

Answer(s): D

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2. What type of attack would be considered a very large flaw in public blockchains such as Bitcoin's Blockchain where the majority of hashpower could possibly be controlled thru an attack?
What is the specific attack Bitcoin could be exposed to?

A. 51% Attacks

B. Tether Token Hack

C. DDoS Attack

D. BIP attack

E. Parity Wallet Attack

Answer(s): A

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3. How many satoshis are in 1 bitcoin and how many wei in an Ether? (Select two.)

☐ A. 1,000,000,000,000,000,000

- [ ] B. 1,000,000,000,000,000
- [ ] C. 1,000,000,000
- [ ] D. 10,000
- [ ] E. 1,000,000,000,000

Answer(s): A B

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4. In the Proof of Stake(POS) algorithm the miners are really known as _____?

A. Notary

B. Oracle

C. Forgers

D. Minters

Answer(s): C

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5. A Byzantine failure is the loss of a system service due to a Byzantine fault in systems that requires _____. What is required?

A. Consensus

B. Crypthography

C. Bandwidth

D. Availability

Answer(s): A

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6. A _____cipher basically means it is using a fixed key which replaces the message with a pseudorandom string of characters. It is basically the encryption of each letter one at a time.
What is the cipher type?

A. Stream

B. Block

C. Parallel

D. RSA

Answer(s): A

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7. You currently using the Metamask Chrome plugin and you see a selection for Etherescan in the plugin. What is Etherscan used for?

A. A search engine that allows users to easily lookup, confirm and validate transaction that have taken place on the Ethereum Blockchain

B. A search engine that allows users to easily lookup, confirm and validate transaction that have taken place on the Bitcoin Blockchain

C. A search engine that allows users to easily lookup, confirm and validate transaction that have taken place on the Ethereum and Tokens Blockchain

D. A search engine that allows users to easily lookup, confirm and validate transaction that have taken place on any Blockchain

Answer(s): A

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8. What are two challenges with using a Proof of Work algorithm? (Select two.)

- [ ] A. Mining pools not allowed
- [ ] B. Difficulty rate goes done every year.
- [ ] C. Expensive
- [ ] D. Power Intensive

Answer(s): C D

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9. Your customer is an enterprise that is focused on financial sectors.
What type of blockchain would this customer likely want specified for their enterprise?

A. Permissionless

B. Decentralized

C. Hybrid

D. Permissioned

Answer(s): D

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10. Which is the following is the metaphor that describes a logical dilemma that plagues many computer networks?

A. Neo Generals' problem

B. Byzantine Generals' problem

C. Byzantine Admirals' problem

D. Renaissance Generals' problem

Answer(s): B

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11. The key difference between encryption and hashing is that encrypted strings can be reversed back into their original decrypted form if you have the right key?

A. TRUE

B. FALSE

Answer(s): A

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12. What is a logic gate in electronics and computer science?

A. A logic gate usually takes in 2 inputs and gives out 1 output. The inputs and outputs are binary values, meaning they can be both 1 and 0.

B. A logic gate usually takes in 3 inputs and gives out 2 output. The inputs and outputs are binary values, meaning they can be 1 or 0.

C. A logic gate usually takes in 2 inputs and gives out 6 output. The inputs and outputs are binary values, meaning they can be both 1 and 0.

D. A logic gate usually takes in 2 inputs and gives out 1 output. The inputs and outputs are binary values, meaning they can be 1 or 0.

Answer(s): D

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13. Ethereum is considered to be a _____type of blockchain.

A. Permissionless

B. Permission Based

C. Hybrid

D. Private

Answer(s): A

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14. Your company working for is now considering the blockchain. They would like to perform a POC with R3 Corda. The CIO was reading about different blockchain consensus algos and would like to understand what type of consensus algos is used with Corda.
What is the best answer?

A. R3 Corda is a pluggable blockchain and allows the enterprise flexibility

B. R3 Corda is a byzantine fault tolerant blokchain

C. R3 Corda is a proof of stake based blockchain

D. R3 Corda is a proof of work based blockchain

Answer(s): A

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15. Secure Hash Algorithm (SHA-256) output is always 256 bits or 32 bytes in length regardless of the length of the input (even if input is millions of bytes). Select best answer.

A. NSA is spying on us so what’s it matters.

B. Depends on input

C. False

D. True

Answer(s): D

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16. In the Ethereum EVM there are two types of memory areas. (Select two.)

- [ ] A. Storage
- [ ] B. Database
- [ ] C. Memory
- [ ] D. Persistent
- [ ] E. Ephemeral

Answer(s): A C

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17. What are some advantages of Proof of Stake(POS) mining over Proof of Work(POW) mining? (Select three.)

- [ ] A. Energy efficient in regards to that it could consume for electricity as compared to PoW
- [ ] B. Faster Hashing algorithms
- [ ] C. No need for expensive compared to POW
- [ ] D. Faster validations compared to POW
- [ ] E. Better blockchain security compared to POW

Answer(s): A C D

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18. Application Specific Integrated Circuit (ASIC) are used always in enterprise blockchains.

A. TRUE

B. FALSE

Answer(s): B

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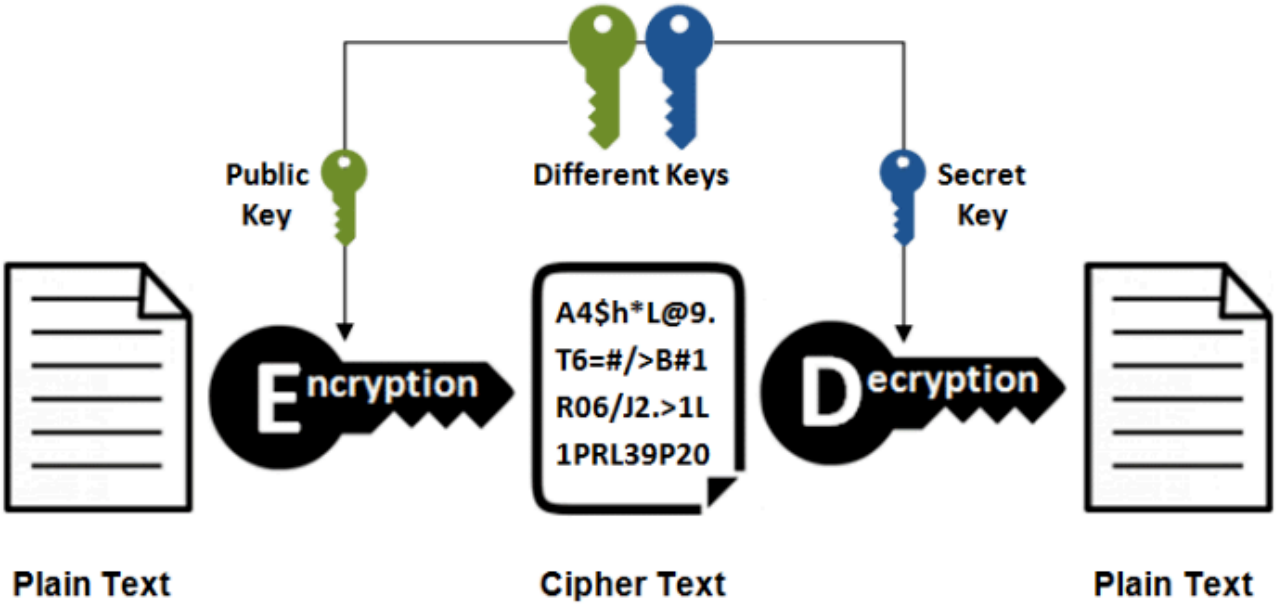
19. What type of encryption is shown below and is commonly used in blockchain cryptography?



A. Diffie-Hellman

B. Asymmetric Encryption

C. Synchronous

D. Asynchronous

E. Symmetric Encryption

Answer(s): B

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20. An encryption algorithm transforms plain text into cipher text using a key?

A. TRUE

B. FALSE

Answer(s): A
