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**Marks** 17.00/20.00

**Grade** 4.25 out of 5.00 (85%)

### Question 1

Incorrect

Mark 0.00 out of 1.00

Which are the key attributes of roll ups?

Select one or more:

- ☒ a. All of the above ✖
- ☐ b. Data or proof of transactions resides on layer-2
- ☐ c. Transaction execution happens outside layer-1
- ☐ d. A roll up smart contract (lying on layer-1) can enforce correct transaction execution on layer-2 by using the transaction data lying on layer-1.

The correct answer is: Transaction execution happens outside layer-1

### Question 2

Correct

Mark 1.00 out of 1.00

Which entity can play a major role to provide scalability in the polkadot by collecting sharded transactions from the users?

Select one or more:

- ☐ a. Validator
- ☐ b. Fisherman
- ☒ c. Collators ✔
- ☐ d. Nominator

The correct answer is: Collators

**Question 3**

Correct

Mark 1.00 out of 1.00

Which are the applications related to the decentralized finance?

Select one or more:

- ☒ a. Codefi ✓
- ☐ b. Doc.ai
- ☐ c. Sandbox
- ☒ d. Uniswap ✗

The correct answer is: Codefi

**Question 4**

Incorrect

Mark 0.00 out of 1.00

Select the true statements -

Select one or more:

- ☒ a. Casper protocol is run in Ethereum and uses a PoS during voter selection process ✗
- ☐ b. Ouroboros is a PoS-based protocol that is run on cosmos blockchain
- ☒ c. PoS uses slashing mechanism if validators cheat. ✗
- ☐ d. 51% attack is far more expensive to carry out in PoS then in PoW mechanism

The correct answer is: 51% attack is far more expensive to carry out in PoS then in PoW mechanism

**Question 5**

Correct

Mark 1.00 out of 1.00

What is the consensus mechanism used by VeChain?

Select one or more:

- ☐ a. Proof of capacity
- ☒ b. Proof of stake ✓
- ☐ c. Proof of work
- ☐ d. Proof of history

The correct answer is: Proof of stake

**Question 6**

Correct

Mark 1.00 out of 1.00

To avoid tx.origin attack, which attribute should we use to check for authorisation of ownership?

Select one or more:

- ☐ a. tr.sender
- ☐ b. tx.sender
- ☐ c. msg.origin
- ☒ d. msg.sender ✓

The correct answer is: msg.sender

**Question 7**

Correct

Mark 1.00 out of 1.00

Which blockchain provides a blockchain building framework called Substrate to develop a new blockchain?

Select one or more:

- ☐ a. IOTA
- ☐ b. Cosmos
- ☐ c. Ethereum
- ☒ d. Polkadot ✓

The correct answer is: Polkadot

**Question 8**

Correct

Mark 1.00 out of 1.00

Key features of IOTA are:

Select one or more:

- ☒ a. Zero transaction fee ✓
- ☐ b. All of the above
- ☐ c. Current version of IOTA is resilient to quantum machine
- ☒ d. Completely self-regulating ✗
- ☒ e. Scalability ✗

The correct answer is: Zero transaction fee

**Question 9**

Correct

Mark 1.00 out of 1.00

Which kind of L2 rollup is used by Arbitrum?

Select one or more:

- ☐ a. None
- ☐ b. ZK rollup
- ☒ c. Optimistic rollup ✓
- ☐ d. Deterministic rollup

The correct answer is: Optimistic rollup

**Question 10**

Correct

Mark 1.00 out of 1.00

Select the true statements about the scalability solutions-

Select one or more:

- ☒ a. Sidechains operate as a decoupled entity with their own behavior, consensus algorithms, attributes and security. ✓
- ☐ b. A state channel is a smart contract that enforces predefined rules for on-chain transactions.
- ☒ c. In the plasma chains, each child may have its own mechanism of block validation. Moreover, the communication between the child chains and the root chain is secured by fraud proofs. ✗
- ☐ d. Polygon provides a layer-2 solution as a sidechain and plasma chain.
- ☐ e. To achieve security, state channel and side chains have their own security measures.

The correct answer is: Sidechains operate as a decoupled entity with their own behavior, consensus algorithms, attributes and security.

**Question 11**

Correct

Mark 1.00 out of 1.00

Which statement best describes the metaverse?

Select one or more:

- ☐ a. A virtual world that connects people worldwide without the internet.
- ☒ b. A non-physical world in which people interact virtually through technology. ✓
- ☐ c. A non-physical world designed for people involved in VR gaming activities.
- ☐ d. A virtual world designed to support the latest 5G mobile technology.

The correct answer is: A non-physical world in which people interact virtually through technology.

**Question 12**

Correct

Mark 1.00 out of 1.00

How does uniswap DEX determine the price of the coin?

Select one or more:

- ☐ a. None of them
- ☐ b. price of the most recent trade or transactions
- ☐ c. Both 1 & 2
- ☒ d. Mathematical formula or algorithm also known as Automated Market Maker ✓

The correct answer is: Mathematical formula or algorithm also known as Automated Market Maker

**Question 13**

Incorrect

Mark 0.00 out of 1.00

Which company is not there in the metaverse world?

Select one or more:

- ☐ a. Amazon
- ☐ b. Microsoft
- ☐ c. Facebook
- ☒ d. Google ✗

The correct answer is: Amazon

**Question 14**

Correct

Mark 1.00 out of 1.00

What is the name of the consensus mechanism developed by Fantom?

Select one or more:

- ☐ a. Tendermint
- ☒ b. Lachesis ✓
- ☐ c. Proof of history
- ☐ d. Proof of stake

The correct answer is: Lachesis

**Question 15**

Correct

Mark 1.00 out of  
1.00

ZK-SNARK stands for Zero Knowledge Succinct Non \_\_\_\_\_

Select one or more:

- ☒ a. Interactive Argument of Knowledge ✓
- ☐ b. Immutable Authority of Knowledge
- ☐ c. Immutable Argument of Knowledge
- ☐ d. Interactive Authority of Knowledge

The correct answer is: Interactive Argument of Knowledge

**Question 16**

Correct

Mark 1.00 out of  
1.00

Ways to reward the miners in the Helium Blockchain

Select one or more:

- ☒ a. Witnesses ✗
- ☒ b. Challenges ✓
- ☒ c. Network Data Transfer ✗
- ☒ d. Proof-of-coverage ✗

The correct answer is: Challenges

**Question 17**

Correct

Mark 1.00 out of  
1.00

Tools used for performing on-chain analysis -

Select one or more:

- ☒ a. Glassnode ✗
- ☒ b. Blockchain Explorer ✓
- ☒ c. DappRadar ✗
- ☒ d. CryptoQuant ✗

The correct answer is: Blockchain Explorer

**Question 18**

Correct

Mark 1.00 out of 1.00

Which of the following is not a known benefit of an NFT?

Select one or more:

- ☒ a. They allow owner the right to reproduce the asset ✓
- ☐ b. They allow a securitization-like process for assets
- ☐ c. They allow the tracing of ownership and custody of an asset over time
- ☐ d. They allow owners to better control depulication of works by others.

The correct answer is: They allow owner the right to reproduce the asset

**Question 19**

Correct

Mark 1.00 out of 1.00

Which of the following is true about the bitcoin scripting language?

Select one or more:

- ☐ a. support infinite time/memory
- ☐ b. turing complete
- ☒ c. stack-based ✓
- ☐ d. None of the above

The correct answer is: stack-based

**Question 20**

Correct

Mark 1.00 out of 1.00

Which entity can play a role to select the trustworthy validators in polkadot

Select one or more:

- ☒ a. Nominators ✓
- ☐ b. Collators
- ☐ c. Validators
- ☐ d. Fisherman

The correct answer is: Nominators