

Blockchain Basics

Week 2

PRACTICE QUIZ -1

1. What allows for the execution of code in the Ethereum Blockchain, while enhancing the basic value transfer capability of the Bitcoin Blockchain?

Byte-code

Solidity

Ethereum Virtual Machine Proof-of-Work

Smart Contracts

Correct

Correct! A Smart Contract is a piece of code deployed in the Blockchain node. Execution of a smart contract is initiated by a message embedded in a transaction

1 / 1 point

2.Question 2

Solidity has data, functions or methods with modifiers, along with getter and setter functions. True or False?

True

False

Correct

Correct! It has functions, methods with modifiers, along with getter and setter functions.

PRACTICE QUIZ -2

1. How many types of accounts are on Ethereum?

4

1

3

2

Correct

Correct! There are two types of Accounts: Externally Owned Accounts and Contract Accounts.

1 / 1 point

2.Question 2

The _____ can send transactions for ether transfer or they can send transactions to invoke a smart contract code.

algorithms

accounts (address)

block headers

blocks

Correct

Correct!

1 / 1 point

3.Question 3

What is the smallest denomination of cryptocurrency on Ethereum?

Ether

Wei

Gas Point

Bitcoins

Correct

Correct!

PRACTICE QUIZ -3

1. ____ hosts the software needed for transaction initiation, validation, mining, block creation, and smart contract execution.

Smart Contract

EVM

Ethereum full node

External Account

Correct

Correct!

1 / 1 point

2.Question 2

_____ receive, verify, gather and execute transactions.

Smart Contracts

Miner nodes

Light wallets

Ethereum Virtual Machine

Correct

Correct!

1 / 1 point

3.Question 3

Any changes to the value of a state variable in a smart contract are stored on the blockchain. True or False?

False

True

Correct

Correct!

PRACTICE QUIZ -4

1. GASLIMIT is the actual amount of gas spent at the completion of the Block creation. True or False?

True

False

Correct

Correct!

1 / 1 point

2.Question 2

What are miners who solved the puzzle but didn't win the block creation called?

Sisters

Cousins

Ommers

Brothers

Correct

Correct!

1 / 1 point

3.Question 3

_____ are paid fees for the creation of a block.

Senders of transactions in the block

Receivers of transactions in the block

All full nodes

Miners of a block

Correct

Correct!

Graded Quiz

1. Inspect and explore block #4390176 using [this link](#) to solve the below question.

What is the previous block hash of block #4390176 in Ethereum Blockchain? Provide the answer in the box below.

0xc253f0917b33b2947b4d9cdb7ad656cc0233ef1781984384284f3a91810a8a36

Correct

Correct!

1 / 1 point

2.Question 2

Inspect and explore block #4390176 using [this link](#) to solve the below question.

What is the total difficulty for block #4390176 in Ethereum Blockchain? Provide the answer in the box below.

1,226,797,074,502,984,598,563

Correct

Correct!

1 / 1 point

3.Question 3

Inspect and explore the transaction with the hash

“0x5edb69874d0900d8857468fbe53715cc1a58137709b8b70e46299bf10983dc09” using [this link](#).

Approximately, how many Ethers are transferred in this transaction?

4434720 ethers

21000 ethers

0.00042 ethers

913.268 ethers

Correct

Correct!

1 / 1 point

4.Question 4

Inspect and explore the transaction with the hash

“0x5edb69874d0900d8857468fbe53715cc1a58137709b8b70e46299bf10983dc09“ using [this link](#).

What is the address of the sender in this transaction? Provide the answer below in the textbox.

0xf9fba58d8345bd3100c5adf3b8b51938e5da0a9d

Correct

Correct!

1 / 1 point

5.Question 5

Which of the following is true about an externally owned account (EOA) in Ethereum Homestead?

EOAs can send transactions (ether transfer or invoke a contract code)

EOAs have associated code with them.

EOAs execute code when triggered by a transaction.

Correct

Correct!

1 / 1 point

6.Question 6

External Owned Accounts (EOA) are controlled by ____.

Hash of the first transaction by that account

Public Key

Public Key and Private Key

Private Key

Correct

Correct!

1 / 1 point

7.Question 7

What is the differentiating factor between the Ethereum Blockchain and the Bitcoin blockchain?

Distributed ledger

Currency Exchange

Wallets

Smart contracts

Correct

Correct!

1 / 1 point

8.Question 8

Calculate the amount of gas points required to execute an operation that involves 2 steps and 1 load from memory. Use the following image.

Operation name	Gas Cost
Step	1
Load from memory	20
Store into memory	100
Transaction base fee	21000
Contract creation	53000
...	...

1

42

22

23

Correct

Correct!

1 / 1 point

9.Question 9

What is the correct sequence involved in a block creation:

1. Transactions validated
2. Transactions Bundled & broadcasted
3. Transaction initiated
4. Block added to the local chain and propagated to the network.
5. Proof of work consensus problem solved

1,2,3,4,5

3,2,1,4,5

5,3,1,2,4

3,1,2,5,4

Correct

Correct!