

Blockchain Basics

Week 1

PRACTICE QUIZ -1

1.Question 2

Did Bitcoin enable a centralized or a decentralized system for exchange of value?

Decentralized

Centralized

Correct

Correct! Blockchain is about enabling peer-to-peer transactions in a decentralized network.

1 / 1 point

2.Question 2

Validation, Verification, Immutable Recording, and _____ lead to Trust and Security.

Coins

Tokens

Consensus

Algorithms

Correct

Correct! This process is in place for an agreement on the block to be added to the chain.

1 / 1 point

3.Question 3

Who introduced the digital online cryptocurrency known as Bitcoin?

Hal Finney

Wei Dai

Satoshi Nakamoto

Nick Szabo

Correct

Correct! This is the name of the person/group of people who developed bitcoin, authored the bitcoin white paper, and created and deployed bitcoin's original reference implementation

1 / 1 point

4.Question 4

A blockchain enables peer-to-peer transfer of digital currency without any intermediaries such as bank. True or False?

True

False

Correct

Correct! The functions of the intermediaries are shifted to the periphery,

PRACTICE QUIZ -2

1.A block in a Blockchain has a header and _____.

Digital Ledger

Bitcoins

Transactions

Inputs

Correct

Correct! A block is composed of a header of information about the block and a set of valid transactions.

1 / 1 point

2.Question 2

What does UTXO stand for?

Unspent Transaction Xeroxed Output

Unspent Transaction Output

Unspent Trade Offer

Unique Transaction Offer

Correct

Correct! UTXOs are outputs generated by a transaction.

1 / 1 point

3.Question 3

A transaction generates new UTXOs for transferring the amount specified in the input UTXOs. True or False?

True

False

Correct

Correct! The transaction uses the amount specified by one or more input UTXOs and transfers it to one or more newly created output UTXOs.

1 / 1 point

4.Question 4

Miners are computers that execute ____.

operations defined by the blockchain protocol

operations defined by users

operations defined by transactions

Correct

Correct! Miners are powerful computer executing software defined by the Blockchain protocol.

PRACTICE QUIZ -3

1. The algorithm for consensus in the Bitcoin blockchain is called ____ protocol.

Proof of Worth

Proof of Stake

Proof of Work

Proof of Elapsed Time

Correct

Correct! It gets its name because it involves “work” or computational power to solve the puzzle and to claim the right to form the next block.

1 / 1 point

2.Question 2

Transaction confirmation is independently performed by all miner nodes. True or False?

False

True

Correct

Correct! Miners, take on added work or computation to verify transactions, broadcast transactions, compete to claim the right to create a block, work on reaching consensus by validating the block, broadcasting the newly created block and confirming transactions.

1 / 1 point

3.Question 3

Transaction 0 in every block in the bitcoin blockchain ____.

is for paying the miner fees.

does not have any input UTXO.

is called the coinbase transaction

All of the above.

Correct

Correct!

PRACTICE QUIZ -4

1. In a public blockchain, a participant can join and leave the blockchain as and when they wish.
True or False?

True

False

Correct

Correct!

Graded Quiz

1. What is the genesis block?

Any block created by the founder

The last block created in the Blockchain

The first block of a Blockchain

The first transaction in each block

Correct

Correct.

1 / 1 point

2.Question 2

Inspect and explore block #0 using [this link](#) to solve the below question.

How many transactions are there in the Genesis block in Bitcoin?

10

0

8893

1

Correct

Correct.

1 / 1 point

3.Question 3

Inspect and explore block #0 using [this link](#) to solve the below question.

How many transactions are there in the Genesis block in Ethereum (other than the transaction for Miner fee)?

0

1

50

8893

Correct

Correct.

1 / 1 point

4.Question 4

Inspect and explore block #490624 using [this link](#) to solve the below question.

What is the hash of the previous block for Bitcoin block #490624? Copy and paste the answer into the box below.

```
0000000000000000000000004239f2a01d8f579bc0dbb214d0f874ece5db587bee3457
```

Correct

Correct!

1 / 1 point

5.Question 5

Inspect and explore block #490624 using [this link](#) to solve the below question.

Which of these fields is present in a Bitcoin block summary?

Gas Limit

Private Key of the Sender

Gas Used

Difficulty

Correct

Correct.

1 / 1 point

6.Question 6

Where are the transactions recorded in a blockchain?

On a centralized immutable ledger

On a SQL Database

On a distributed immutable ledger

On a SQLite Database

Correct

Correct.

1 / 1 point

7.Question 7

What are UTXOs in a Bitcoin Blockchain?

These are actual currency that is sent to the receiver of a transaction

These are transaction output that has been expended

These form the inputs and outputs for transactions

These are rewards for miners

Correct

Correct.

1 / 1 point

8.Question 8

Blockchain was created to support security and trust in a _____ environment of the cryptocurrency Bitcoin.

centralized trustless

centralized trusted

decentralized trusted

decentralized trustless

Correct

Correct!

1 / 1 point

9.Question 9

What/Who are miners in a blockchain?

Computers that validate and process blockchain transactions and solve the cryptographic puzzle to add new blocks

A person who just initiates a transaction in the blockchain

An algorithm that you can use to calculate the next block in a blockchain

A person who receives money as the receiver of the transaction

Correct

Correct.