What is Cryptocurrency?

Worksheet

Cryptocurrency is digital, decentralized money secured by cryptography and blockchain — no bank needed. Users store coins in digital wallets and trade on exchanges.

Questions

1. What technology secures cryptocurrency transactions?

A) Cryptography & blockchain
B) Banks & credit cards
C) Government regulation
D) Internet service providers

2. Can a Bitcoin transaction be reversed?

A) Yes, always
B) No, once confirmed it is final
C) Only by the bank
D) Only within 24 hours

3. What is the main risk of holding cryptocurrency?

A) Government support guaranteed
B) Price volatility and hacking risk
C) Too slow to use
D) No international transfer

4. Which is NOT a type of digital asset?

A) Bitcoin
B) Ethereum
C) US Treasury Bill
D) NFT

5. Alice sends 0.5 Bitcoin to Bob using his public address. How does the network confirm this?

6. What happens if two people try to spend the same Bitcoin twice?

7. An investor buys 1 Ethereum at €2000 and sells at €3000. What is the gain?

8. Define: What is cryptocurrency?

9. Define: What is a private key?

10. Define: What is a blockchain?

Answer Key

1. A) Cryptography & blockchain — Cryptocurrency relies on cryptographic math and distributed blockchain ledgers, not banks.
2. B) No, once confirmed it is final — Blockchain transactions are immutable — once confirmed, they cannot be undone.
3. B) Price volatility and hacking risk — Crypto is highly volatile and digital wallets can be hacked if not secured properly.
4. C) US Treasury Bill — Treasury bills are government bonds, not cryptocurrency or blockchain-based digital assets.
5. Alice uses her private key to sign the transaction. The network broadcasts it to thousands of nodes. Miners verify Alice has 0.5 BTC and include it in a block. Once the block is mined, the transaction is final and irreversible.
6. The first valid transaction (earliest timestamp) is recorded in the blockchain. The second attempt fails because the Bitcoin is already assigned. The network rejects double-spending — this is the key innovation of blockchain.
7. Profit = Sale price − Purchase price = €3000 − €2000 = €1000. Return % = (€1000 / €2000) × 100 = 50%. Note: This ignores transaction fees and taxes (which reduce actual profit).
8. Digital money secured by cryptography, operating on blockchain without a central bank.
9. A secret code that proves you own your cryptocurrency and lets you sign transactions.
10. A public ledger where all transactions are recorded in permanent, linked blocks.