Crypto Wallet Basics
Addresses, Private Keys, Seed Phrases & Wallets

Introduction

To fully understand crypto wallets, we must first understand a few core blockchain concepts. These concepts explain how ownership works on the blockchain and how wallets help us manage that ownership safely.

1. What is an Address?

An **address** is a string of text generated using cryptography that represents your account on the blockchain.

- Public information (safe to share)
- Used to send and receive funds
- Acts as your unique identifier on the blockchain

Example (Ethereum address):
`0x01573Df433484fCBe6325a0c6E051Dc62Ab107D1`

Exam Check

Correct statement: An address represents your account on the blockchain.
Ethereum address format: Starts with `0x`

2. What is a Private Key?

A **private key** is the secret counterpart to your address.

- Proves ownership of an address
- Allows you to send funds
- Anyone with the private key controls the account

Think of:

- Address = username
- Private key = password

Example private key:
`E9873D79C6D87DC0FB6A5778633389F4453213303DA61F20BD67FC233AA33262`

Critical Security Rule

- Never share your private key
- No password recovery exists
- Losing it means losing your funds permanently

3. What is a Seed Phrase?

A **seed phrase** is a master password for your entire wallet.

- Controls all accounts in a wallet
- Can regenerate all private keys and addresses
- Must be backed up securely

Analogy:

- Private key = password for one account
- Seed phrase = password manager master password

Example seed phrase:
```
dove lumber quote board young robust kit invite plastic regular skull
history
```

Exam Check

Correct description: Seed phrase is like a master password for your crypto wallet.

4. What is a Crypto Wallet?

A **crypto wallet** manages your private keys and seed phrases, and allows you to interact with decentralized applications (dApps).

- Manages multiple blockchain accounts
- Signs transactions on your behalf
- Acts as single sign-on for dApps

Exam Check

Correct answer: Crypto wallet manages your private keys.

5. Setting Up a Wallet (IMPORTANT)

- Create a new wallet for development only
- Do NOT use wallets with real funds
- Never reuse personal wallets in tutorials

6. Popular Ethereum Wallets

Recommended beginner-friendly Ethereum wallets:

- MetaMask
- Coinbase Wallet

MetaMask is:

- An Ethereum wallet
- Available as browser extension and mobile app

Other Wallet Options

- Rainbow Wallet
- Trust Wallet
- Atomic Wallet
- Frame.sh

Final Checklist (Before Continuing)

- Wallet installed
- Seed phrase backed up securely
- Development wallet created
- No real funds stored

Tip: Never screenshot or store seed phrases digitally. Use offline backups.