

## WHAT IS BLOCKCHAIN TECHNOLOGY?



## What is Block Chain?

Block chain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system. A block chain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the block chain.

## What is Ethereum?

Ethereum is a decentralized block chain platform that establishes a peer-to-peer network that securely executes and verifies application code, called smart contracts. Smart contracts allow participants to transact with each other without a trusted central authority. Ethereum is a decentralized, open-source block chain with smart contract functionality. Ether is the native cryptocurrency of the platform.

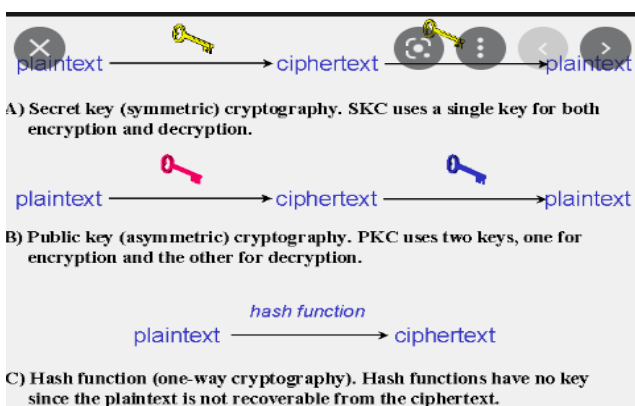
## What is bitcoin?

Bitcoin is a decentralized digital currency that can be transferred on the peer-to-peer bitcoin network. Bitcoin transactions are verified by network nodes through cryptography and recorded in a public distributed ledger called a blockchain.

## What is smart contract?

Smart contracts are simply programs stored on a blockchain that run when predetermined conditions are met. They typically are used to automate the execution of an agreement so that all participants can be immediately certain of the outcome, without any intermediary's involvement or time loss

OR



A smart contract is a computer program or a transaction protocol which is intended to automatically execute, control or document legally relevant events and actions according to the terms of a contract or an agreement.

## Cryptography:

Cryptography is the study of secure communications techniques that allow only the sender and intended recipient of a message to view its contents. Encryption uses an algorithm and a key to transform an input (i.e., plaintext) into an encrypted output (i.e., ciphertext).

## Hyperledger:

Hyperledger Fabric is an open-source platform for building distributed ledger solutions, with a modular architecture that delivers high degrees

of confidentiality, flexibility, resiliency, and scalability. This enables solutions developed with fabric to be adapted for any industry. This is a private and confidential blockchain framework managed by the Linux Foundation

**Token:**

TOKENS are digital assets defined by a project or smart contract and built on a specific blockchain. Token can be UTILITY TOKENS or SECURITY TOKENS. UTILITY TOKENS are also called consumer or incentive tokens.

**Mining:**

Blockchain "mining" is a metaphor for the computational work that nodes in the network undertake in hopes of earning new tokens. In reality, miners are essentially getting paid for their work as auditors. They are doing the work of verifying the legitimacy of Bitcoin transactions. It is the process of adding transactions to the large distributed public ledger of existing transactions, known as the block chain. The term is best known for its association with bitcoin, though other technologies using the blockchain employ mining.

**Dapp:**

A decentralized application (dApp) is a type of distributed open source software application that runs on a peer-to-peer (P2P) blockchain network rather than on a single computer. DApps are visibly similar to other software applications that are supported on a website or mobile device but are P2P supported.

**Solidity:**

Solidity is an object-oriented programming language created specifically by the Ethereum Network team for constructing and designing smart contracts on Blockchain platforms. It's used to create smart contracts that implement business logic and generate a chain of transaction records in the blockchain system.

**Wallet:**

A blockchain wallet is a cryptocurrency wallet that allows users to manage different kinds of cryptocurrencies—for example, Bitcoin or Ethereum. A blockchain wallet helps someone exchange funds easily. Transactions are secure, as they are cryptographically signed.

**Ethereum gas:**

A gas fee is the amount of Ether (ETH) required for an Ethereum blockchain network user to conduct a transaction on the network. Gas fees are used to compensate Ethereum miners for their work in verifying transactions and securing the network.

mnist browser

**Hash:**

A hash is a function that meets the encrypted demands needed to solve for a blockchain computation. Hashes are of a fixed length since it makes it nearly impossible to guess the length of the hash if someone was trying to crack the blockchain. The same data will always produce the same hashed value.

**Timestamp:**

Timestamps are used for keeping records of information online or on a computer. A timestamp displays when certain information was created, exchanged, modified or deleted. The following are examples of how timestamps are used: Computer files may contain a timestamp that shows when the file was last changed.