LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

B.Com. DEGREE EXAMINATION – **ACCOUNTING AND FINANCE**

SIXTH SEMESTER – **APRIL 2025**

UAF 6504 – EMERGING TECHNOLOGIES IN FINANCE

Date: 30-04-2025 Dept. No. Max. : 100 Marks

Time: 09:00 AM - 12:00 PM

Section A

Answer all by choosing the best option. **(40x1= 40)**

1. Genesis block is

   a. Any block created by the founder
   b. The last block of the Blockchain
   c. The first block of a Blockchain
   d. The first transaction in each block

2. Bitcoin is based on _________ blockchain.

   a. Private
   b. Public
   c. Public Permissioned
   d. Permissioned

3. Blockchain follows the ____ continuum for its transactions

   a. Push
   b. Pull
   c. Both Push and pull
   d. None of the above

4. Where is a Blockchain's central server?

   a. Origin of the blockchain
   b. Service provider
   c. There is no central server, it is distributed
   d. Ordered Node

5. Blockchain solves the following problem of cryptocurrencies.

   a. Anonymous transactions
   b. Double Spending
   c. Currency transaction
   d. None of the above

6. The components of a block are

   a. Transaction, timestamp, hash of previous block
   b. Transaction and ledger
   c. Transaction and header
   d. Transaction and digital ledger

7. The component that ensures the successful transactions in the network is

   a. Incentives
   b. Consensus algorithms
   c. Blocks
   d. Ledger

8. Which is called the digital gold?

   a. Ethereum
   b. Bitcoin
   c. Hyperledger
   d. Plastic money

9. What does UTXO stand for?

   a. Unspent Trade Offer
   b. Unspent Transaction xeroxed Output
   c. Unique Transaction Offer
   d. Unspent Transaction Output

10. Transaction 0 in every block of the bitcoin blockchain________.

a. Miner fees
b. Does not have any input UTXO
c. Coinbase transaction
d. All of the above

11. Mechanisms that allow tokens and other digital assets from one blockchain to be securely used in a separate blockchain called

a. Parachain
b. Sidechain
c. Small blocks
d. Sideblocks

12. A hacker can alter ___ percentage of a block.

a. 49
b. 51
c. 100
d. None

13. A blockchain split is called a

a. Partition
b. Fork
c. Halfblock
d. Partial block

14. The alternatives of Proof of Work are

a. Proof of Distribution
b. Proof of stake
c. Proof of Network
d. Proof of Ledger

15. PBFT stands for

a. Public Bond Fund Transfer
b. Practical Byzantine Fault Tolerance
c. Principal Block First Transfer
d. Private Block Funds Transfer

16. Blockchain does not provide?

a. Security
b. Immutability
c. Fault tolerance
d. Fast transaction time

17. Nonce

a. Null bitcoin
b. A Hash Function
c. Prevents Double Spending
d. Merkle tree

18. A hot wallet is

a. Connected to Internet
b. Not connected to Internet
c. Connected to centralized systems
d. Wallet with high temperature

19. Ethereum virtual machine is powered by

a. Gas
b. Electricity
c. Transactions
d. Ledgers

20. Proof of stake is a

a. Ledger
b. Consensus algorithm
c. Incentive mechanism
d. Transaction

21. The cryptocurrency TrueUSD is built using the

a. RSA Protocol
b. Substitution protocol
c. Networking protocol
d. True Token protocol

22. Quorum is an Ethereum based

a. Enterprise blockchain
b. Collaborative blockchain
c. Consortium blockchain
d. Consensus algorithm

23. The process of converting an information into a secret message is called

a. Encryption
b. Decryption
c. Substitution
d. Conversion

24. The software that creates and stores the private keys and the associated public keys is called a

a. Wallet
b. Record
c. Relation
d. Smart contract

25. The M and N of a multi-sig wallet denote the number of

a. required signers and authorized signers
b. authorized signers and required signers
c. available signers and authenticated signers
d. authorized and authenticated signers

26. Precursor of bitcoin is

a. Digicash
b. Paytm
c. Amazon wallet
d. Google wallet

27. The process of supplying computing power to solve complex maths problems in order to provide network security with an expectation of a reward is called

a. Warehousing
b. Mining
c. Data mining
d. Data manipulation

28. The address where the coins or tokens are sent and received

a. Public address
b. Private address
c. Group address
d. Community address

29. The type of asset that anyone can possess by voluntarily joining any public blockchain without having to trust any third party

a. Cryptoassets
b. Tangible assets
c. Intangible assets
d. Fixed assets

30. Hash ID has

a. 512 characters
b. 1024 characters
c. 64 characters
d. 256 characters

31. ____ signs the transactions in a block

a. Endorser
b. Committer
c. Consenter
d. Miner

32. _____ validates the transactions in a block

a. Endorser
b. Committer
c. Consenter
d. Miner

33. Internal controls act for

a. Recording
b. Custody
c. Authority
d. All the above

34. The process of reducing the storage size of the entire copy of the blockchain is called the

a. Block turning
b. Block recording
c. Block monitoring
d. Block pruning

35. Shards are

a. Horizontal partitioning of data
b. Vertical partitioning of data
c. Linear partitioning of data
d. Multiple partitioning of data

36. The temporary access code that is produced by an app or hardware token is called a

a. Two Factor Authentication
b. Two Factor Access
c. Two File Access
d. Two File Authentication

37. Crypto assets _______represent the total market cap of all cryptoassets.

a. Price indices
b. Market capitalization
c. Exchanges
d. Browsers

38. Transaction throughput is measured in terms of

a. Number of transactions per second
b. Number of transactions per minute
c. Number of transactions per hour
d. Number of transactions per day

39. The contracts that are both human and machine readable to aid in dispute resolution and interpretation are called the

a. Richardson contracts
b. Ricardian contracts
c. Rich contracts
d. Raw contracts

40. The method to add the hash into the bitcoin blockchain is called the

a. Anchoring
b. Inserting
c. Stabilizing
d. Hashing

Section -B

Answer any 3 questions from the following. (3x20=60)

41. List and explain the types of cryptowallets.

42. What is a Howey Test? Explain how ICOs, STOs and IEOs are subject to Howey's test.

43. Explain Smart contracts. How does it ensure security of cryptocurrency transactions?

44. List and explain the various new fraud schemes that are floated to challenge the security assurance of cryptocurrency transactions.

45. Explain how technical controls form a part of the internal controls in a blockchain.

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