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**KIET Group of Institutions**

**(Information Technology)**

**Btech, VI Sem**

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| Q. No. | Question | Marks | CO | BL |
|  | Which of the following is popularly used for storing bitcoins?  (a) Pocket  (b**) Wallet**  (c) Money Box  (d) Full Stack | 2 | 1 | 1 |
|  | Which of the state of US introduced the BitLicense regulation for cryptocurrency  companies?  (a) New York  (b) California  (c) Texas  (d) **Washington** | 2 | 1 | 1 |
|  | Cryptographic Hash Function transforms an arbitrary length of a fixed length  string that act more or less as a Fingerprint of the document.  (a)**True**  (b) False | 2 | 1 | 2 |
|  | What does the block in the blockchain consist of?   (a) Transaction data  (b) A Hash point   (c) A Timestamp  (d) **All of these** | 2 | 1 | 3 |
|  | After 10 Minutes a new block is formed that contains latest transactions  (a)**True**  (b) False | 2 | 1 | 3 |
|  | What is not a ledger type considered by users in Blockchain?  (a) Distributed Ledger  (b) Decentralized Ledger  (c) Both a and b  (d) **None of these** | 2 | 1 | 2 |
|  | What time did Bitcoin Network Start?  (a) **January 2009**  (b) September 2001  (c) November 2008 | 2 | 1 | 1 |
|  | Where is the bitcoin central server located?  (a) Washington DC  (b) Undisclosed Location  (c) London  (d**) None of these** | 2 | 1 | 1 |
|  | What does a ledger in blockchain does?  (a) **Mapping between owner and object**  (b) Identification of objects owned  (c) Identification of owners | 2 | 1 | 2 |
|  | Which of the following is important for Blockchain  (a) **Database Security**  (b) Auditing  (c) Planning | 2 | 1 | 2 |
|  | How often does Bitcoin ledger reconcile  (a) Every day  (b) Every 3 months  (c) Every 3 Minutes  (d) **Every 10 Minutes** | 2 | 1 | 3 |
|  | Which of the following is first distributed blockchain implementation? (a) **Bitcoin**  (b) Ethereum | 2 | 1 | 1 |
|  | Bitcoin is based on \_\_\_\_\_\_\_\_ blockchain? (a) Private  (b) **Public**  (c) Public Permissioned  (d) Permissioned | 2 | 1 | 2 |
|  | Blockchain can be stored as which of the following? (a) A flat file  (b) A Database  (c) **Both of the above** (d) None of the above | 2 | 1 | 1 |
|  | In blockchain, blocks are linked \_\_\_\_\_\_\_\_? (a) **Backward to the previous block**  (b) Forward to next block  (c) Not linked with each other | 2 | 1 | 4 |
|  | The primary benefit of immutability is…................... (a) Scalability  (b) Improved Security  (c) **Tamper Proof**  (d) Increased Efficiency | 2 | 1 | 2 |
|  | Hash identifying each block in the Blockchain is generated using which of the following cryptographic algorithm? (a) SHA128  (**b) SHA256** | 2 | 1 | 2 |
|  | Blockchain is the same as Bitcoin. (a) True  **(b) False** | 2 | 1 | 4 |
|  | Blockchain forks can result in which of the following? (a) Multiple parent blocks  (b) **Multiple children blocks** | 2 | 1 | 3 |
|  | Which of the following is asymmetric encryption Algorithm? (a) Blowfish  (b) Twofish  (c) **RSA**  (d) Tripple DES | 2 | 1 | 5 |
|  | What is a node?  a) type of cryptocurrency  b) Blockchain  c) **computer on a Blockchain network**  d) an exchange | 2 | 1 | 4 |
|  | \_\_\_\_\_\_\_\_\_\_\_\_ is a process which verifies the identity of a user who wants to access the system.  **a) Authentication**  b) Non-repudiation  c) Integrity  d) None of the above |  | 1 | 4 |
|  | What does P2P stand for?  a) Password to Password  b) **Peer to Peer**  c) Product to Product  d) Private Key to Public Key | 2 | 1 | 5 |
|  | What is a miner?  a)A type of blockchain  b) An algorithm that predicts the next part of the chain  c) A person doing calculations to verify a transaction  d) **Computers that validate and process blockchain transaction**s | 2 | 1 | 3 |
|  | Which is NOT a part of asymmetric encryption?  a) **Mining**  b) Public key  c) Passphrase  d) Private Key | 2 | 1 | 2 |
|  | What is a dApp?  a) A type of Cryptocurrency  b) A condiment  c) A type of blockchain  d) **A decentralized application** | 2 | 1 | 1 |
|  | What is the term for when a blockchain splits?  a)**A fork**  b)A merger  c)A sidechain  d)A division | 2 | 1 | 3 |
|  | What is the purpose of a nonce?  a)Follows nouns  b)A hash function  c)**Prevents double spending**  d)Sends information to the blockchain network | 2 | 1 | 3 |
|  | What is a genesis block?  a)**The first block of a Blockchain**  b)A famous block that hardcoded a hash of the Book of Genesis  onto the blockchain  c)The first block after each block halving  d)The 2nd transaction of a Blockchain | 2 | 1 | 2 |
|  | What is a private key?  a) A key on your key chain  b) A key given to the public  c) **A key NOT to be given to the public**  d) A key that opens a secret door | 2 | 1 | 3 |
|  | Asymmetric encryption uses:  a) Public keys only  b) Private keys only  c) **Public and Private keys**  d) Proof of Stake | 2 | 1 | 2 |
|  | What is Proof of Stake?   1. A certificate needed to use the blockchain 2. A password needed to access an exchange 3. How private keys are made 4. **A transaction and block verification protocol** | 2 | 1 | 3 |
|  | What is the name of the research paper that brought Bitcoin to the world?  a)Black Paper  b**)White Paper**  c)Yellow Paper  d)Green Paper | 2 | 1 | 4 |
|  | When a record is on a blockchain, who can access it?  a**)Multiple people simultaneously.**  b)One person at a time.  c)Only the people involved in the transaction. | 2 | 1 | 2 |
|  | Once records are submitted on a blockchain, can they be altered?  a)Yes – the parties can go back in and alter them at any time.  b) Yes – but only within a certain time frame.  c) **No – they cannot be altered.** | 2 | 1 | 3 |
|  | Is it possible to program a blockchain to record transactions automatically?  a)**Yes**  b)No | 2 | 1 | 2 |
|  | What is the process of creating new bitcoins popularly known as?  a)Finding  b)Panning  c)Sourcing  d)**Mining** | 2 | 1 | 2 |
|  | Which of the following is the permissioned Blockchain  a)Public  b)**Private**  c) Hybrid  d)Federated | 2 | 1 | 3 |
|  | Which of the following is the permissionedless Blockchain  a)**Public**  b)Private  c) Hybrid  d)Federated | 2 | 1 | 3 |
|  | Hyperledger Fabric is an example of  a)Public Blockchain  b)**Private Blockchain**  c) Hybrid Blockchain  d)Federated Blockchain | 2 | 1 | 3 |
|  | IBM food Trust is an example of  a)Public Blockchain  b)Private Blockchain  c) Hybrid Blockchain  d)**Federated Blockchain** | 2 | 1 | 3 |
|  | Dragonchain is an example of  a)Public Blockchain  b)Private Blockchain  c) **Hybrid Blockchain**  d)Federated Blockchain | 2 | 1 | 3 |
|  | Litecoin is an example of  a)**Public Blockchain**  b)Private Blockchain  c) Hybrid Blockchain  d)Federated Blockchain | 2 | 1 | 3 |
|  | Ethereum is an example of  a)P**ublic Blockchain**  b)Private Blockchain  c) Hybrid Blockchain  d)Federated Blockchain | 2 | 1 | 3 |
|  | Is Blockchain Fully Public?   1. Yes 2. No 3. **It Depends** | 2 | 1 | 2 |
|  | In cryptography, what is cipher?  a) **algorithm for performing encryption and decryption**  b) encrypted message  c) both algorithm for performing encryption and decryption and encrypted message  d) decrypted message | 2 | 1 | 1 |
|  | In asymmetric key cryptography, the private key is kept by \_\_\_\_\_\_\_\_\_\_  a) sender  b) **receiver**  c) sender and receiver  d) all the connected devices to the network | 2 | 1 | 4 |
|  | Cryptographic hash function takes an arbitrary block of data and returns \_\_\_\_\_\_\_\_\_  a) f**ixed size bit string**  b) variable size bit string  c) both fixed size bit string and variable size bit string  d) variable sized byte string | 2 | 1 | 4 |
|  | Public Key system is Useful Because   1. It uses two Keys 2. **there is no key distribution problem as public key can in a commonly accessible database** 3. private key can be kept secret 4. It is a symmetric key system. | 2 | 1 | 5 |
|  | A digital signature is a mathematical technique which validates?  a) authenticity  b) integrity  c) Non-repudiation  **d) All of the above** | 2 | 1 | 5 |
|  | What is the core requirement for a business blockchain?  a) Optimized cryptographic mining  b) Technical services, business services and solution  c) A new cryptocurrency (x)  d) **Shared ledger, smart contract, privacy and trust** | 2 | 1 | 2 |
|  | What is the name of the open source blockchain technology to which IBM is contributing code?  a) All of the above  b**) Linux Foundation Hyperledger**  c) IBM Hyperledger  d) IBM Blockchain | 2 | 1 | 3 |
|  | Which of the following statements are true about transactions in a business blockchain?  a) Transactions are endorsed by a subset of business network participants.  b) They are added to the ledger with appropriate confidentiality.  c) They cannot be modified.  **d) All of the above** | 2 | 1 | 3 |
|  | Which of these items are an example of an asset?  a) A digital music file  b) A mortgage  c) A car  **d) All of the above** | 2 | 1 | 2 |
|  | Which of these facts about a ledger is not correct?  a) **A ledger is used purely for reporting of cash**  b) A ledger is a system of record  c) A ledger consists of transactions, often governed by contracts  d) A ledger describes the inputs and outputs of a business | 2 | 1 | 1 |
|  | Which benefits of a blockchain-enabled business network engender trust?  a) Scalable, reliable, secure, maintanable  b) Modern, ideally suitable to digital transformation, social enabled  **c) Consensus, provenance, immutability and finality** | 2 | 1 | 1 |
|  | What is bitcoin?  a) SA private network  **b) An unregulated censorship resistant shadow currency**  c) Another name for blockchain  d) The technology that underpins Hyperledger | 2 | 1 | 2 |
|  | Which statement characterizes the core requirement for a business blockchain?  a) Technical services, business services and solution  b) Optimized cryptographic mining  c) A new cryptocurrency  d) **Shared ledger, smart contract, privacy services, and trust** | 2 | 1 | 2 |
|  | What is a smart contract?  a) A legal contract written in constrained English  b) A cognitive contract  **c) Business rules implied by the contract embedded in blockchain**  d) None of these | 2 | 1 | 3 |
|  | Which of the following statements is false?  a) Blockchain can help improve provenance for an asset  b) **Blockchain adds a cognitive analytics ability to the asset supply chain**  c) Blockchain captures a record of every committed transaction in chronological order  d) Blockchain provides a smart contract feature that can be used to model assets of any description | 2 | 1 | 1 |
|  | Which type of use case is a good place to start a blockchain journey?  a) Citizen-owned identity  b) Digital currency  **c) Compliance ledger, such as Asset Management**  d) International equities exchange | 2 | 1 | 2 |
|  | What is the appropriate use of business blockchain?  a) **A more efficient transaction processing system across a business network**  b) Modern, cognitive and transformational fabric for the 21st century and beyond  c) To make low value, high volume micro payment systems more efficient  d) None of these | 2 | 1 | 1 |
|  | Which of these areas IBM is not investing in?  **a) Cryptocurrency: developing a currency suitable for business**  b) Making business blockchain real for customers  c) Hosting and support with value added services provision  d) Technology: contributing to the business blockchain | 2 | 1 | 4 |
|  | What is Ethereum?  a)The name of a public blockchain  b)The name of a peer to peer network  c)A commercial blockchain-based protocol featuring a smart contract manager  d)**An open-source blockchain-based distributed computing platform featuring smart contract functionality.** | 2 | 1 | 2 |
|  | What are the main cryptographic concepts in blockchain?  a)**Hashing and public key**  b)Login and digital signature  c)Hashing and digital signature  d)Pin code and hashing | 2 | 1 | 2 |
|  | When is there a consensus?  a)When, in a smart contract, the private key and the public key matche  b)When the value of a bitcoin proposed by a seller is accepted by a buyer  c)**When several nodes (usually most nodes on the network) all have the same blocks in their locally-validated best blockchain**  d)When a smart contract executes the rules agreed by all parties | 2 | 1 | 4 |
|  | What are the different types of blockchain?  a)Public, private, generic  b)Public, secret, consortium  c)Generic, secret, consortium  d)**Public, private, consortium** | 2 | 1 | 3 |
|  | What is an advantage of a public blockchain?  A) It does not use disinterested third parties to secure blocks, as all participants have a vested interest.  B) It is more resilient against fraud, because it uses federated nodes to combat fraud.  C) **It is open to everyone in the world without permission and licensing requirements.**  D) Its networks are built by for-profit companies and the working of the network is guaranteed. | 2 | 1 | 5 |
|  | What is an example of the use of cryptography in a blockchain?  A) Accessing private or hybrid blockchains by using a private key  B) Creating cryptocurrency as a reward for mining nodes  C) Keeping blockchains secure from 51% attacks by corrupt nodes  D) **Securing transfers of cryptocurrency between recipients** | 2 | 1 | 4 |
|  | How do hybrid blockchain networks combat 51% attacks?  A) Through a central controller ensuring the security of each node in the network  B) Through a Proof of Work (PoW) algorithm, which allows miners to secure the network  C) Through incentivization, where miners receive currency for securing the network  D) **Through Merkle tree roots, that allow the network to restore itself to its last valid block** |  | 1 | 4 |
|  | Which description fits only the Proof of Work (PoW) consensus algorithm?  A) A collaborative consensus algorithm, where approved accounts do the validation.  B) A collaborative consensus algorithm that is facilitated by farmers, who offer leftover memory of their  computer to make transactions possible.  C) A consensus algorithm, where the validation is done for the entire transaction flow, including not only  the correctness, but also the sequence of transactions.  D) **An intensive and expensive, competitive algorithm where each mining node on the blockchain is**  **competing to secure blocks.** | 2 | 1 | 5 |
|  | How can information be secured in a blockchain?  A) By using a closed peer-to-peer (P2P) network, sharing information across platforms  B) By using a distribution of cryptocurrencies over miners through the network  C) **By using asymmetric cryptography, consisting of a public and private key**  D) By using distributed ledger technology (DLT), which records transactions at the source | 2 | 1 | 3 |
|  | In what way do blockchains use a public witness?  A) A digital courthouse or library acts as a public witness to store information to reference.  B) **A node on a blockchain network attests to the accuracy and truthfulness of information.**  C) A person sends a transaction over a public network to earn rewards as a public witness.  D) A preferred node can be elected to attest to the accuracy and truthfulness of information | 2 | 1 | 2 |
|  | An organization wants to develop smart contracts, based on blockchain technology. The  organization does not wish to burden employees with maintaining the security of the blockchain.  What blockchain technology fits the organization best?  A) A hybrid blockchain  B) A private blockchain  C) **A public blockchain** | 2 | 1 | 1 |
|  | Why is blockchain described as the technology that adds a layer of trust to the internet?  A) **It allows individuals and groups to work together without having to trust each other or establish**  **authority.**  B) It creates a dedicated virtual private network (VPN) tunnel between two or more parties to carry out  online fund transfers.  C) It provides mechanism for the government to create their own digital fiat currency as a replacement of  physical currency.  D) It provides multifactor authentication to create and update records of cryptocurrency transactions  securely. | 2 | 1 | 3 |
|  | A hash function takes an input string with?  A. numbers  B. alphabets  C. media files  D. **All of the above** | 2 | 2 | 3 |
|  | The fixed-length output is called a ?  A. **hash**  B. bitcoin  C. data  D. value | 2 | 2 | 2 |
|  | In 2001, SHA-256 Hashing algorithm was developed by the ?  A. DFA  B. CSA  C. ZSA  D. **NSA** | 2 | 2 | 3 |
|  | Which one of the following is not an application hash functions?  A. One-way password file  B. Virus Detection  C. Intrusion detection  D. **Key wrapping** | 2 | 2 | 2 |
|  | When a hash function is used to provide message authentication, the hash function value is referred to as  A. Message Field  B. Message Score  C. **Message Digest**  D. Message Leap | 2 | 2 | 3 |
|  | A function that is second pre-image resistant is also collision resistant.  a)True  b) **False** | 2 | 2 | 4 |
|  | What is the number of round computation steps in the SHA-256 algorithm?   1. 80 2. 76 3. **64** 4. 70 | 2 | 2 | 2 |
|  | Transactions ar verified by network nodes through cryptography and recorded in a public distributed ledger called a ?  A. cryptocurrency wallet  B. **blockchain**  C. nodes  D. cryptocurrency | 2 | 2 | 3 |
|  | To claim the reward, a special transaction called a?  A. nonce  B. online wallets  C. hardware wallet  D. **coinbase** | 2 | 2 | 2 |
|  | Bitcoin have a central authority?  A. TRUE  B. FALSE | 2 | 2 | 2 |
|  | Which hash function used in Ledger?  A. SHA-64  B. SHA-128  C. **SHA-256**  D. SHA-512 | 2 | 2 | 3 |
|  | Which of the following statement is true about bitcoin?  A. There is no central server; the bitcoin network is peer-to-peer  B. There is no central storage; the bitcoin ledger is distributed  C. The ledger is public; anybody can store it on their computer  D. **All of the above** | 2 | 2 | 3 |
|  | Where does bitcoin comes from?   1. Mining 2. we have to create one 3. Bitcoin.org 4. NSA | 2 | 2 | 3 |
|  | How many bitcoins will world have?   1. 20 Million 2. **21 Million** 3. 22 Million 4. 23 Million | 2 | 2 | 3 |
|  | Does Bitcoin require Bank Transaction?   1. Yes 2. No | 2 | 2 | 3 |
|  | Bitcoin is a \_\_\_\_\_\_\_   1. Commodity 2. Asset 3. Cryptocurrency 4. **All of the above** | 2 | 2 | 3 |
|  | The network timestamp transaction by hashing them into ongoing chain of hash based \_\_\_\_\_\_\_\_\_?   1. Method 2. Task 3. **Proof of work** 4. Troof of transaction | 2 | 2 | 3 |
|  | New transaction is broadcast into ?   1. Destination Node 2. Source Node 3. **All nodes** 4. None | 2 | 2 | 2 |
|  | Which on the following is a cryptocurrency   1. yen 2. euro 3. pound 4. **ethereum** | 2 | 2 | 1 |
|  | Smallest unit of bitcoin is ?   1. **Microbitcoin** 2. Millibitcoin 3. satoshi coin 4. None | 2 | 2 | 4 |
|  | Choose the odd one out  a)Marco Polo, Energy Web Foundation  b) Energy Web Foundation, IBM Food Trust  c)Hyperledger Sawtooth, Corda  d)**NEO, Dragonchain** | 2 | 2 | 4 |
|  | Proof of elapsed time is given by   1. **Intel** 2. Samsung 3. Google 4. None | 2 | 2 | 5 |
|  | Consortium blockchain and Hybrid blockchain have the same concept of work?   1. True 2. False | 2 | 2 | 5 |
| 99 | Which of the following does not require any intermediaries to work?   1. public 2. private 3. Federated 4. Hybrid | 2 | 2 | 5 |
| 100 | Public and private blockchain have the same set of features except the permission of peer to work on network.   1. True 2. False | 2 | 2 | 5 |