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| **P.V.P Siddhartha Institute of Technology** | | | | | | | | | | | | | | | | | | | | | | | | **Signature of Invigilator with date:** | | **Marks Obtained:** | |
| **Department of Computer Science and Engineering** | | | | | | | | | | | | | | | | | | | | | | | |
| **Course: B.Tech** | | | | **Year: III** | | | | | | **Semester: II** | | | | | | **Objective: II** | | | | | | | |
| **Regulation:PVP20** | | | | **Maximum Marks:10Marks** | | | | | | | | | | | | | | **Session: F.N** | | | | | |
| **A.Y:2024-25** | | | | **Date:27/03/25** | | | | | | | **Duration: 20 min** | | | | | | | | | | | | |
| **Subject Code: 20CS4601C** | | | | | | | | | **Subject Name: Block Chain Technology** | | | | | | | | | | | | | | | | | | |
| **Registered Number:** | | | | | | | | | | | | | | | | | **Name:** | | | | | | | | | | |
| **Answer all the Questions. Each Question carries ½ Mark 20×½ M =10M** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **S.No** | **Question** | | | | | | | | | | | | | | | | | | | | | | | | **CO** | **Level** | **Answer** |
| **1.** | Bitcoin is a | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) protocol | | | | b) digital currency | | | | | | | | | c) platform | | | | | d) all | | | | | |
| **2.** | Before verification and inclusion in block, the transaction are placed in a special memory buffer called | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Field | | | | b) Gas | | | | | | | | c) Counter | | | | | | d) Transaction Pool | | | | | |
| **3.** | The transaction data structure contains: | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Version number | | | | | | b) Input counter | | | | | | | c) Lock time | | | | | d) all | | | | | |
| **4.** | \_\_\_\_\_\_\_\_is used to generate public and private key pairs in the Bitcoin network. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) TEDA | | | | b) DES | | | | | | | | c) AES | | | | | | d) ECC | | | | | |
| **5.** | The standard transaction types are | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Pay to Public Key Hash (P2PKH) | | | | | | | b) Pay to Script Hash (P2SH) | | | | | | | c) MultiSig (Pay to MultiSig) | | | | | | | | d) all | |
| **6.** | This is an arbitrary number that miners change repeatedly to produce a hash that is lower than the difficulty target.. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Gas | | | | b) Messages | | | | | | | | c) Nonce | | | | | | | d) Call | | | | |
| **7.** | \_\_\_\_\_\_ are executed locally on a node VM and do not result in any state change because they are never mined. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Nonce | | | | b) Gas | | | | | | | | c) Call | | | | | | | d) Messages | | | | |
| **8.** | This element of transaction is a substate that contains the list of accounts (if any) that are disposed of after the transaction executes. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Log series | b) Touched accounts | | | | | | | | | | | | c) Suicide set | | | | | | | | d) None | | |
| **9.** | \_\_\_\_\_\_\_is a novel consensus algorithm that allows a node to be selected randomly based on the time that the node has waited before proposing a block | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Fork | | | | b) ChainCode | | | | | | | | c) PoET | | | | | | | | d) None | | | |
| **10.** | \_\_\_\_\_\_\_\_represent the smallest unit of data that represent a financial agreement. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Transactions | | | | b) Flows | | | | | | | | | c) State objects | | | | | | | | | d) Consensus | |
| **11.** | A bitcoin address is created by taking the corresponding public key of a private key and hashing it twice, first with the \_\_\_\_\_\_\_ algorithm and then with \_\_\_\_\_\_. The resultant 160-bit hash is then prefixed with a version number and finally encoded with a \_\_\_\_\_encoding scheme. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) AS400, TEDA, Base54 | | b) SHA-256, RIPEMD-160, Base58Check | | | | | | | | | | c) DES, TEDA, Base58Check | | | | | | d) SHA-256, AES, ASCII | | | | | |
| **12.** | A \_\_\_\_\_\_\_\_ is a secure and unstoppable computer program representing an agreement that is automatically executable and enforceable. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Transaction | b) Smart Contract | | | | | | | | | | | c) Lease | | | | | | d) Gas | | | | | |
| **13.** | A Ricardian contract can be represented as a tuple of three objects, namely | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Phrase, Points, and Plurals | | | | b) Prose, Parameters, and Code | | | | | | | | | c) Documents, Opinions, and Objections | | | | | d) Debts, Gas, and Conclusions | | | | | |
| **14.** | \_\_\_\_are the accounts that have code associated with them along with the private key. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Externally Owned Accounts (EOAs) | | | | b) Contract Accounts (CAs) | | | | | | | | c) Berger Accounts(BAs) | | | | | | d) None | | | | | |
| **15.** | A measure of computational effort required to execute a transaction or contract is called \_\_\_\_\_ | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Nonce | | | | b) Gas | | | | | | | c) Fuel | | | | | | | d) None | | | | | |
| **16.** | Which Layer in Blockchain IoT Architecture is responsible for data processing and analytics | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Managaement Layer | | | | b) Application Layer | | | | | | | | c) Blockchain Layer | | | | | | d) Device Layer | | | | | |
| **17.** | This utility implements the Interledger protocol, which facilitates interoperability across different distributed and non-distributed ledger networks. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Quilt | | | | | b) Composer | | | | | | | c) Cello | | | | | | d) Explorer | | | | | |
| **18.** | \_\_\_\_\_ is a component of Hyperledger Fabric blockchain that allow the flow of confidential transactions between different parties on the network. | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Channels | | | | b) Transactions | | | | | | | | c) MSP | | | | | | d) Clients | | | | | |
| **19.** | \_\_\_\_\_\_\_\_is a modular component of Hyperledger Fabric blockchain that is used to manage identities on the blockchain network | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) Membership Service Provider | | | | b) Transactions | | | | | | | | c) World state database | | | | | | d) Peers | | | | | |
| **20.** | Transaction fees are calculated by the formula: | | | | | | | | | | | | | | | | | | | | | | | | **CO1** | **L1** |  |
| a) sum(inputs) - sum(outputs) | | | | b) sum(inputs) + sum(outputs) | | | | | | | | c) sum(inputs) \* sum(outputs) | | | | | | | | | | d) sum(inputs) / sum(outputs) | |