

Total No. of Questions : 5]

SEAT No. :

PC1160

[6317]-107

[Total No. of Pages : 2

S.Y.B.B.A. (Computer Application)

CA-305 : BLOCK CHAIN

(2019 Pattern) (Semester-III)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.

Q1) Answer the following: (any-8)

[8×2=16]

- a) What is a Ledger?
- b) Define Block in case of blockchain.
- c) What is Byzantine Fault Tolerance?
- d) What is required to be solved for proof of work?
- e) Define wallet.
- f) What is Solidity?
- g) Give examples of cryptocurrency.
- h) Define Hyperledger.
- i) Which are the three basic steps of digital signature?
- j) Define Nonce.

Q2) Answer the following: (Any - 4)

[4×4=16]

- a) Explain Consensus in blockchain.
- b) Compare Proof of Work and Proof of Stake in blockchain.
- c) Draw a labelled diagram to explain Ethereum Virtual Machine.
- d) Explain the working of blockchain.
- e) Create a contract using solidity to display the message, "Hello Blockchain".

P.T.O.

Q3) Answer the following: (any-4)

[4×4=16]

- a) Draw a labelled diagram to explain the Life Cycle of Blockchain.
- b) Draw a labelled diagram to explain the structure of Block.
- c) Explain the benefits of blockchain.
- d) What is mining in blockchain ? Explain 'pool mining' and 'mining alone'.
- e) Write a function using Solidity to calculate Hash Code for the transaction.

Q4) Answer the following: (Any - 4)

[4×4=16]

- a) Explain P2P Payment Gateway.
- b) Explain the double spending problem and its solution.
- c) Explain the Actors in case of blockchain.
- d) Explain blockchain network.
- e) Explain distributed ledger technology with a labelled diagram.

Q5) Answer the following: (Any - 2)

[2×3=6]

- a) State the uses of Hyperledger.
- b) Explain Public Key Infrastructure
- c) Explain Decentralised Autonomous Organizations (DAO)

