

Total No. of Questions : 5]

SEAT No. :

PC1586

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T.Y. B.Sc.

COMPUTER SCIENCE

CS-3511 : Blockchain Technology

(Revised 2019 Pattern) (CBCS) (Semester - V)

Time : 2 Hours]

[Max. Marks : 35

Instructions to the candidates:

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

Q1) Attempt any eight of the following : (out of ten)

[8×1=8]

- a) Who is the inventor of Bitcoin?
- b) What is gas?
- c) Which command is used to find the target value?
- d) What is used for a wallet security?
- e) Define nonce.
- f) In which network, each node is itself a client and server?
- g) Name the institute that standardized AES algorithm.
- h) What is IPO?
- i) The blockchain is invented by bitcoin. State and explain true/false.
- j) What is confidentiality?

P.T.O.

Q2) Attempt any four of the following (out of five) : **[4×2=8]**

- a) What is Ether? List any two denominations in wei?
- b) What is consortium and private blockchain?
- c) List and explain types of variables in solidity.
- d) How nonce useful in hashing?
- e) Define stream cipher and block cipher.

Q3) Attempt any two of the following : (out of three) **[2×4=8]**

- a) What is Wallet? Explain its types.
- b) Explain tasks of miners.
- c) List the applications of smart contract. Explain any three.

Q4) Attempt any two of the following (out of three) : **[2×4=8]**

- a) Describe the structure of EVM.
- b) Explain digital signature with neat diagram.
- c) Explain the layered architecture of blockchain.

Q5) Attempt any one of the following (out of two) : **[1×3=3]**

- a) State and explain Merkle tree.
- b) What are the properties of SHA 256?

