

Total No. of Questions : 5]

SEAT No. :

P-6397

[Total No. Of Pages : 2

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T.Y. B.Sc.

COMPUTER SCIENCE

CS - 3511: Blockchain Technology

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

Time : 2 Hours]

[Max. Marks : 35

Instructions to the candidates :

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams must be drawn wherever necessary.

Q1) Attempt any Eight of the following (out of Ten) :

[8 × 1 = 8]

- a) What is hash function?
- b) Define PoW.
- c) What is DApp?
- d) What is consensus?
- e) What is Nonce?
- f) What is Ether?
- g) Give the name of crypto currencies where blockchain is used.
- h) What is DAO?
- i) What is plain text and cipher text?
- j) What is a smart contract?

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

- a) What are the advantages of smart contract?
- b) What is hard fork and soft fork?
- c) What is PoS? Which blockchain uses PoS?
- d) Explain symmetric & asymmetric key cryptography.
- e) Explain the structure of blocks in Blockchain.

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

- a) Which are the different types of Blockchain?
- b) What are the challenges of Blockchain?
- c) Write a short note on ICO.

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

- a) Write a short note on digital signature.
- b) Explain the working of mining.
- c) Write a short note on Byzantine fault tolerance.

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

- a) Which are the different data types in solidity?
- b) Differentiate between blockchain and database.

