[6237]-508
T.Y.B.Sc.
COMPUTER SCIENCE
CS - 3511 : Block Chain Technology
(Revised 2019 Pattern) (Semester - V)

Time : 2 Hours]

[Max. Marks : 35

Instructions to the candidates:
1) *All questions are compulsory.*
2) *Figures to the right indicates full marks.*
3) *Neat diagrams must drawn wherever required.*

Q1) Attempt any eight of the following (out of ten). [8×1=8]

a) Define plain text and cipher text.

b) Which institute standardised AES algorithm?

c) What is a hash function?

d) Who proposed a white paper for Ethereum in 2013.

e) What is block height?

f) Define Nonce.

g) Which programming language is used to write a smart contract in Remix?

h) What is a time - stamp?

i) What is gas price?

j) Name any five cryptocurrencies.

Q2) Answer any four of the following (out of five). [4×2=8]

a) What are the benefits of immutable ledger in blockchain.

b) Explain the structure of a block in blockchain.

c) Explain merkle tree with diagram.

P.T.O.

d) List and explain value data types in solidity.

e) What is hard fork and soft fork?

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

a) Differentiate between blockchain and databases.

b) What are the tasks of miners?

c) Explain the widely used cryptographic algorithms.

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

a) Write a short note on DES.

b) List the advantages of smart contract. Explain any four.

c) Explain the working of DAO.

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

a) Define transaction and explain its structure.

b) Write a short note on cryptowallets.

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