

Total No. of Questions : 8]

SEAT No. :

**PA-914**

[Total No. of Pages : 2

**[5927]-344**

**B.E. (Computer Engineering)  
BLOCKCHAIN TECHNOLOGY  
(2019 Pattern) (Semester - VII) (410243)**

*Time : 2½ Hours ]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*
- 4) Assume suitable data, if necessary.*

**Q1) a)** Explain in detail following blockchain platforms. **[8]**

- i) Public
- ii) Private
- iii) Consortium
- iv) IoTA

b) Discuss following consensus algorithms used in blockchain technology. **[6]**

- i) Proof of work
- ii) Proof of activity

c) Explain proof of stake (POS)? **[4]**

OR

**Q2) a)** Explain consensus in blockchain in details. **[8]**

b) Explain in detail **[6]**

- i) Bitcoin
- ii) Ethereum
- iii) Hyperledger

c) Discuss Byzantine General problem. **[4]**

OR

**P.T.O.**

- Q3)** a) List & explain types of crypto currency. [6]  
b) What is Metamask? Illustrate in detail. [6]  
c) Differentiate between coinbase & Binance. [5]

OR

- Q4)** a) What is cryptocurrency? Explain in detail. [6]  
b) Explain in detail crypto wallets. [6]  
c) Explain in detail Bitcoin. [5]

- Q5)** a) What is Ethereum? Explain. [8]  
b) Explain solidity in detail. [6]  
c) Discuss swarm Decentralized storage platform. [4]

OR

- Q6)** a) What is smart contract? Explain types of smart contracts. [8]  
b) Discuss whisper Decentralized Messaging platform. [6]  
c) Explain Ethereum Virtual Machine in detail. [4]

- Q7)** a) Explain Block chain applications in retail & banking services. [6]  
b) Explain role of blockchain in IoT. [6]  
c) Explain role of blockchain in Healthcare. [5]

OR

- Q8)** a) Discuss integration of blockchain with other domains. [6]  
b) Explain blockchain applications in financial services. [6]  
c) Explain application of blockchain government sector. [5]

**\*\*\* END \*\*\***