

Total No. of Questions : 8]

SEAT No. :

PC-2370

[Total No. of Pages : 2

[6354]-487

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

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates :*

- 1) *Solve questions Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

**Q1) a)** Discuss in brief Bitcoin and Ethereum cryptocurrencies. **[8]**

**b)** Explain following : **[9]**

- i) Proof of work
- ii) Proof of stake and
- iii) Proof of activity

OR

**Q2) a)** List and explain types of Blockchain. **[8]**

**b)** Explain Byzantine general problem scenario. Explain the problem and its probable consequences. **[9]**

**Q3) a)** Differentiate between Coinbase and Binance. **[9]**

**b)** What is Metamask? Discuss any one application of Metamask. **[8]**

OR

**Q4) a)** List and explain types of crypto wallet. **[8]**

**b)** Write a note on Bitcoin. **[9]**

*P.T.O.*

- Q5) a)** What is Swarm, and how does it address the need for decentralized storage in the Ethereum network? [9]
- b) What is Ethereum? Define smart contracts and give an example of a real-world scenario where a smart contract could be beneficial. [9]

OR

- Q6) a)** State and explain the various components of Ethereum. Explain the various types of Ethereum Networks. [9]
- b) Explain Decentralized Messaging Platform - Whisper and its purpose in the Ethereum ecosystem. [9]

- Q7) a)** With the help of neat diagram explain how blockchain can be used for any supply chain application. [9]
- b) Explain the use of blockchain technology in the government sector. 'Which are the different blockchain based applications proposed for it? [9]

OR

- Q8) a)** Explain how blockchain and IOT can work together. [9]
- b) List out the applications of blockchain Technology in different areas. Explain any 2 in detail. [9]

