

**Time: 3 Hours**

**Max. Marks: 80**

**Note: (1) Question No. 1 is compulsory**

**(2) Attempt any three from remaining five questions**

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| Q.1 A | Differentiate Centralized and Decentralized Systems             | 05 |
| B     | Explain the term Consensus with example.                        | 05 |
| C     | Explain Digital Signature in detail.                            | 05 |
| D     | Write a brief note on Blockchain and its types.                 | 05 |
| Q.2 A | Explain the features of Public Key Cryptography in detail.      | 10 |
| B     | Describe Proof of Stake and Proof of Burn in detail.            | 10 |
| Q.3 A | Explain the Smart Contracts with suitable example.              | 10 |
| B     | Describe RAFT algorithm in detail.                              | 10 |
| Q.4 A | Explain Practical BFT in brief.                                 | 10 |
| B     | Explain Ethereum mining Process in detail.                      | 10 |
| Q.5 A | What do you understand by 51% attack how to prevent it.?        | 10 |
| B     | Explain role of Blockchain in Supply Chain Management in brief. | 10 |
| Q.6 A | Explain Solidity Programming with Suitable example.             | 10 |
| B     | Write a brief note on Sybil attack.                             | 10 |
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