

**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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|--------------|--|-----------|
| <b>Q.1 A</b> | Explain Gas in brief.  | <b>05</b> |
| <b>B</b>     | Write a short note on Smart Contract.                        | <b>05</b> |
| <b>C</b>     | Explain Proof of Work briefly.                               | <b>05</b> |
| <b>D</b>     | Describe the need of Blockchain Government Sector.           | <b>05</b> |
| <b>Q.2 A</b> | Explain Blockchain Technology with its Components.           | <b>10</b> |
| <b>B</b>     | Explain Ethereum mining process in detail.                   | <b>10</b> |
| <b>Q.3 A</b> | Describe Paxos algorithm in detail.                          | <b>10</b> |
| <b>B</b>     | Explain Merkle Tree with Suitable example.                   | <b>10</b> |
| <b>Q.4 A</b> | Explain Practical BFT in brief.                              | <b>10</b> |
| <b>B</b>     | Explain consensus mechanisms in brief.                       | <b>10</b> |
| <b>Q.5 A</b> | Explain Solidity Programming with Suitable example.          | <b>10</b> |
| <b>B</b>     | Write a brief note on features of hyper ledger.              | <b>10</b> |
| <b>Q.6 A</b> | Describe Digital Signature with its need.                    | <b>10</b> |
| <b>B</b>     | What do you Understand by Gossip Protocol explain in detail. | <b>10</b> |