BLOCK EXAM PAPER
MID-SEM

National Forensic Sciences University
School of Cyber Security & Digital Forensics
M.Tech. AIDS (2024-25)

Subject Code: (CTMTAIDS SII P5 EL1)   Date:
Subject Name: Blockchain Security & Investigation
Exam: Time:

Q1. Answer the following question in short brief. (Any 10)   **[50 Marks]**

1. Describe the distributed consensus mechanism and its significance.

2. Explain transactions in blockchain and the factors that determine transaction fees.

3. Differentiate between Proof of Stake and Proof of Burn.

4. Describe the potential impact of energy utilization in blockchain networks.

5. Explain the construction and functionality of Ethereum.

6. Discuss the role of sidechains in blockchain applications.

7. Explain the challenges and advantages of alternate smart contract constructions.

8. Analyze the Bitcoin Protocol's mining strategies and reward system.

9. Describe the construction of Go-Ethereum and its application in blockchain.

10. Evaluate the energy utilization challenges and their solutions in blockchain mining.

11. Discuss applications of blockchain technology with real-world examples.