

7. (a) Discuss the legal implications and potential risks associated with the Internet of Things (IoT). 7.5
- (b) Analyze a case study involving a cybercrime and discuss the relevant provisions of the IT Act. 7.5

Roll No.

Total Pages : 04

008608

May 2024

B.Tech. (ECE) (Sixth Semester)
Cyber Laws and Security (OEL-603)

Time : 3 Hours]

[Maximum Marks : 75

Note : It is compulsory to answer all the questions (1.5 marks each) of Part A in short. Answer any *four* questions from Part B in detail. Different sub-parts of a question are to be attempted adjacent to each other.

Part A

1. (a) Distinguish between cyber law and traditional law. 1.5
- (b) Describe the key features of a datagram header. 1.5
- (c) Classify different types of cybercrimes. 1.5
- (d) Define message integrity and explain its significance in data transmission. 1.5
- (e) Distinguish between public key and private key in asymmetric encryption. 1.5

- (f) What are the principles of data privacy according to relevant regulations ? 1.5
- (g) Explain the concept of "Electronic Record" and its legal validity under the IT Act. 1.5
- (h) What are the challenges associated with investigating cybercrimes ? 1.5
- (i) Describe the legal challenges possessed by Artificial Intelligence. 1.5
- (j) State the key objectives of the Information Technology Act (IT Act). 1.5

Part B

- 2. (a) Discuss the importance of cyber law in today's world. 7.5
- (b) Identify a real-world situation and discuss how cyber law principles might be applied. 7.5
- 3. (a) Differentiate between message authentication codes (MAC) and digital signatures. 7.5
- (b) Describe the concept of a Hash function and its role in message integrity verification. 7.5

- 4. (a) A company wants to implement a secure login system for its online application. Discuss, how message authentication techniques can be used to verify user identities and prevent unauthorized access. 7.5
- (b) Briefly explain the concept of fragmentation and reassembly in datagram communication. 7.5
- 5. (a) Explain the concept of a VPN (Virtual Private Network) and how it enhances network security. 7.5
- (b) Demonstrate how to utilize patenting and copyright of a novelty in accordance with the IT Act. 7.5
- 6. Imagine you are designing a secure network for an online banking application. Discuss the key security considerations you would prioritize during the design process. 15