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Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 33233 Roll No. 1 2 1 0 4 3 2 0 3 2

B. Tech. Examination, 2024-25

(Odd Semester)

CYBER LAW AND SECURITY

Time : Three Hours] *[Maximum Marks : 60*

Note :– Attempt all questions.

SECTION–A

1. Attempt all parts of the following : 8×1=8

   (a) What is the importance of information systems in modern organizations?

   (b) Briefly explain the history of information systems.

   (c) Define the CIA triad in information security.

   (d) What are the roles of information classification in security management?

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(e) What are cryptographic systems?

(f) Mention two common network attacks.

(g) What is cybercrime? Provide an example.

(h) Define software piracy and its impact on the software industry.

SECTION – B

2. Attempt any two parts of the following : 2×6=12

(a) Discuss the changing nature of information systems and their impact on business processes.

(b) Explain the principles of confidentially, integrity and availability (CIA) in information security.

(c) Explain the model of cryptographic systems and their importance in securing communication.

(d) Discuss the ethical issues related to intellectual property rights, including copyright and patents.

SECTION – C

ote :– Attempt all questions. Attempt any two parts from each questions. 8×5=40

3. (a) Explain the role of internet and web services in the development of information systems.

(b) How do distributed information systems address the challenges of scalability and reliability?

(c) Analyze the various types of threats and attacks faced by information systems and suggest mitigation strategies.

4. (a) Discuss the framework for information security, including ISO 27001 and SEE-CMM.

(b) What are the design and interoperability issues in biometric systems? Provide examples.

(c) Describe the legal, economic and social challenges associated with information security.

5. (a) Discuss the implementation issues of firewalls in network security.

(b) Describe the role of intrusion detection system (IDS) and intrusion prevention systems (IPS) in protecting networks.

(c) How do authentication mechanism enhance the security of virtual private networks (VPNs)?

6. (a) How does the Indian IT act address cybercrimes and online data privacy?

(b) Analyze the challenges of protecting personal data in an era of increasing digital connectivity.

(c) Examine the role of investigation and ethics in addressing cybersecurity challenges and preventing cybercrimes.

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