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

PAPER ID : 33233 Roll No.

B. Tech Examination 2025-26

(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 : $1 \times 8 = 8$

   (a) What is the purpose of ISO 27001?

   (b) What is tunneling in vitual private networks(VPNs)?

   (c) What is authentication in information security?

   (d) Differentiate between IPv4 and IPv6.

   (e) Define fingerprint in the context of information security.

   (f) What is the importance of cyber ethics?

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(g) What is the main objective of physical security?

(h) What is the difference between copyright and patent?

SECTION – B

2. Attempt any two question : $6 \times 2 = 12$

(a) What are the major types of threats and attacks on information systems? Explain how organizations can assess damages caused by such attacks.

(b) Compare information security and privacy. How do security metrics help in evaluating the effectiveness of security programs?

(c) Explain the concept of intrusion detection systems (IDS). Discuss their working principle, and how they help in protecting networks from attacks.

(d) Explain the different types of cyber crimes with suitable examples.

SECTION – C

Note:- Attempt all questions. Attempt any two parts from each question. $8 \times 5 = 40$

3. (a) Discuss the changing nature of information systems in the era of globalization and digital transformation.

(b) Describe the importance of authentication services and organizational security implicatons.

(c) Explain the need for distributed information systems with suitable examples.

4. (a) Describe the components and functionsing of electronic payment systems. Explain how E-cash and credit/debit cards are used in such systems.

(b) Define confidentiality, integrity, and availability in information security. Why are these considered the core principles of the CIA triad?

(c) What is Access Control? Discuss the role of biometric systems and the factors influencing their selection.

5. (a) Describe the system of keys in cryptography. Differentiate between symmetric and asymmetric key systems.

(b) Discuss the design and implementation issues in firewalls.

(c) Explain the role of digital signatures and their requirements in ensuring document security.

6. (a) Differentiate between software piracy and plagiarism with suitable examples from digital media.

(b) Discuss the major provisions of the Indian IT Act, 2000 related to cyber offences.

(c) Discuss the ethical issues involved in intellectual property rights (IPR).

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