6. (a) What are PCI DSS controls and why do they matter for credit card security?

(b) Why is forensic science important in cyber crime? Example of digital evidence in court.

(c) What is Gap Analysis and why is it needed in cyber security management?

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

PAPER ID : 44010 Roll No.

B. Tech Examination 2025-26

(Odd Semester)

PRIVACY AND SECURITY IN IOT

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

Note :– Attempt all questions.

SECTION–A

1. Attempt all parts of the following : $8 \times 1 = 8$

(a) What is ethical hacking?

(b) Name any one domain of cyber security.

(c) What does VPN stand for?

(d) Define intrusion detection system(IDS).

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(e) Name any one symmetric encryption algorithm.

(f) What is the main purpose of firewall?

(g) What does the CIA Triad stand for?

(h) Name any two types of cyber attacks.

SECTION – B

2. Attempt any two parts of the following : $2 \times 6 = 12$

(a) Describe the five phases of hacking in detail.

(b) Explain insider threats and how organizations can minimize them.

(c) Discuss symmetric and asymmetric key cryptography with diagrams.

(d) Explain the concpet of data loss prevention (DLP) in cloud environments.

SECTION – C

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

3. (a) What is RSA algorithm and how does it work?

(b) Define hashing. How is hashing different from encryption?

(c) What are digital signatures and how do they ensure data integrity?

4. (a) What is a firewall and how does it protect a network?

(b) What are intrusion detection and prevention systems (IDS/IPS)?

(c) Explain the difference between antivirus and anti-malware tools.

5. (a) Differentiate between public, private, and hybrid cloud with real-world example.

(b) What is Cryptographic Erasure? How is it useful in cloud data management?

(c) What is Evidence Management in digital forensics?

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