

December 2023
 B.Tech(EL) VII SEMESTER
 Cyber Law and Security (OEL-603)

Time: 3 Hours

Max. Marks:75

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

PART -A

- Q1 (a) Explain the principles of the "need-to-know" and "least privilege" in the context of information security. (1.5)
- (b) Differentiate between System Threats and attacks. (1.5)
- (c) Discuss the challenges in laptop security. (1.5)
- (d) What is the role of encryption in securing electronic payment transactions, and why is it important? (1.5)
- (e) How does a firewall contribute to the security of e-commerce websites and transactions? (1.5)
- (f) Explain the importance of Cyber security in today's digital world. (1.5)
- (g) Why intrusion detection system is important? (1.5)
- (h) Discuss various design issues in Biometric System. (1.5)
- (i) Explain the various issues in data mining security. (1.5)
- (j) How can businesses effectively manage and enforce their intellectual property rights to prevent infringement? (1.5)

PART -B

- Q2 (a) Define information security and its primary objectives. Explain why it is important for organizations. (10)
- (b) Explain wireless computing. Why security of mobile devices is challenging. (5)
- Q3 (a) Explain the importance of data security in e-commerce transactions. Describe the different types of electronic payment methods, including credit cards, debit cards, mobile payments, and online banking. (10)
- (b) What is a biometric system, and how does it differ from traditional authentication methods like passwords and PINs? (5)
- Q4 (a) Discuss the ethical issues when it comes to data privacy and surveillance in the digital age. (5)
- (b) How digital signatures are useful in verifying the authenticity and integrity of e-commerce transactions. (10)

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- Q5 How does copyright protection differ from patents and trademarks? What types of (15)
works are eligible for copyright protection? What are the legal and ethical
considerations surrounding the information security and law?
- Q6 (a) Explain the tunneling process in VPNs and how it secures data transmission over a (10)
public network.
(b) Differentiate between signature-based and anomaly-based IDS. When and where (5)
are each typically deployed?
- Q7 (a) Describe the packet-filtering firewall, stateful inspection firewall, proxy firewall (10)
and their respective advantages and disadvantages.
(b) List and explain various types of network attacks and network policies. (5)
