

Enrolment No. /Seat No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.SC(CS)- INTEGRATED – SEMESTER VII- EXAMINATION –WINTER-2024

Subject Code:1370309

Date: 29/11/2024

Subject Name: Cybercrime Ethics and Laws

Time:10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

	Marks
Q.1 (a) Discuss the legal implications of Hacking under the IT Act, 2000.	03
(b) Explain various types of attack on computer system?	04
(c) Explain the potential pieces of evidence that exists in cell phone along with the methodology to collect and handle them with suitable example.	07
Q.2 (a) Explain Digital Signatures with example.	03
(b) Explain Ethical issues in AI and core principles.	04
(c) What is the need of Cyber Regulation and also explain Ethics in Information society.	07
OR	
(c) List and explain E – Commerce threats with example.	07
Q.3 (a) How can encryption be used to enhance the security of mobile devices?	03
(b) What are the common types of threats that antivirus software should be able to detect and mitigate?	04
(c) Explain the concept of Encryption and Decryption in the context of cryptographic algorithms.	07
OR	
Q.3 (a) What is multi-factor authentication (MFA), and why it is important for mobile device security.	03
(b) Explain a Man-in-the-Middle attack and how it can impact online transaction.	04
(c) List and explain Digital payments related common frauds and also discuss the preventive measures for the same.	07
Q.4 (a) Explain following term: 1) Confidentiality 2) Integrity 3) Availability	03
(b) Explain Digital Forensics? Mention the nature of special properties of digital evidence in comparison to physical evidence.	04

- (c) Describe the best practices for performing data backups on mobile devices. **07**

OR

- Q.4** (a) Explain following term: **03**

1) Anti-virus 2) Firewall 3) Unified Payment Interface (UPI)

- (b) What are the common security vulnerabilities associated with Wi-Fi networks, and how can they be mitigated? **04**

- (c) How often security patches be should applies to mobile phones, and why is patch management important. **07**

- Q.5** (a) Explain following term: **03**

1) Attack Vectors 2) Cyberspace 3) Criminal Behavior

- (b) Define and explain Hacking and its types. **04**

- (c) What are the risks associated with third-party software on mobile phones, and how can be managed? **07**

OR

- Q.5** (a) What are the best practices for setting up a secure Wi-Fi network at home or in an office? **03**

- (b) How can users ensure their mobile devices are protected from unauthorized access and malware? **04**

- (c) Discuss the security features commonly associated with banking cards. **07**
