Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER– VI EXAMINATION – SUMMER 2026

Subject Code:3164207 Date:01-06-2026

Subject Name: Cyber Crime and Mitigation

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. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	Difference between: White-Hat and Black-Hat Hackers	**03**
	(b)	What is Digital Forensic? Draw and explain Process of Digital forensics.	**04**
	(c)	Explain IT-Act 2000 in brief. List out different sections under IT- Act 2000 and explain any four in detail.	**07**
Q.2	**(a)**	Write a short note on: SQL Injection attack.	**03**
	(b)	Difference between: DoS and DDoS attacks.	**04**
	(c)	List out and explain Most Common Types Cyber Attacks. Explain Phishing attacks with example.	**07**
		OR	
	(c)	List out Various Cybercrimes case studies. Explain any one Cybercrime case studies.	**07**
Q.3	**(a)**	Write a short note on Impact and effects of cybercrimes.	**03**
	(b)	Explain in details: Crimes Against Person's Property.	**04**
	(c)	List OWASP Top 10 Vulnerabilities and Explain any SIX Vulnerabilities.	**07**
		OR	
Q.3	**(a)**	List out Taxonomy of Cybercrime.	**03**
	(b)	Explain in details: Cybercrimes Against Government.	**04**
	(c)	What is Cyber Crime? List out Most common Types of Attack's. Explain Ransomware and Malware (Trojans, viruses, and worms) Attacks.	**07**
Q.4	**(a)**	Explain in details: Virtual Private Network.	**03**
	(b)	Differentiate between: Stateful and Stateless firewalls.	**04**
	(c)	What is Firewall? List out Types of Firewalls. Explain Circuit-level gateway and Proxy firewall.	**07**
		OR	
Q.4	**(a)**	Difference between: Packet Filter and Firewall	**03**
	(b)	Draw and Explain Architecture of Metasploit.	**04**
	(c)	Write a short note on Netcat and Socat with example.	**07**

Q.5	**(a)**	Difference between: Machine learning and Deep learning.	**03**
	(b)	List out Approaches for Fighting Against Phishing E-mail Attacks. Explain Authentication Level Protection.	**04**
	(c)	What is IDS? List out IDS. Explain NIDS and HIDS with Proper Diagram.	**07**

OR

Q.5	**(a)**	Write a short note: Life Cycle of Phishing E-mails with example.	**03**
	(b)	Explain in details: Network Anomaly Detection System.	**04**
	(c)	Explain Taxonomy of Bitcoin Security Issues and Defense Mechanisms	**07**

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