GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Engineering - SEMESTER - V EXAMINATION - SUMMER 2025

Subject Code: 3154207   **Date: 30-05-2025**

Subject Name: Cyber Security

Time: 02:30 PM TO 05:00 PM   **Total Marks: 70**

Instructions
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

			Marks
Q.1	**(a)**	Explain Vulnerability Probe.	**03**
	(b)	What is meant by a vulnerability? List and explain the major types of vulnerabilities in computer systems.	**04**
	(c)	Explain OpenVAS in Details.	**07**
Q.2	**(a)**	How SQLMap is used in Cybersecurity.	**03**
	(b)	Explain Zed Attack Proxy in Details.	**04**
	(c)	Describe Password Cracking tools in Details.	**07**
		OR	
	(c)	Explain Application Inspection tools in Details.	**07**
Q.3	**(a)**	Write Difference Between Stateless Vs Stateful Firewalls.	**03**
	(b)	What is a packet filtering firewall? Describe its features and how it functions in detail.	**04**
	(c)	What is Network Address Translation (NAT)? What is Port Forwarding? Explain with examples.	**07**
		OR	
Q.3	**(a)**	What is port forwarding? Describe its working mechanism and applications with examples.	**03**
	(b)	What is a firewall and its types?.	**04**
	(c)	Describe Snort as an Intrusion Detection System. Explain how it detects and analyzes network traffic for security threats.	**07**
Q.4	**(a)**	What is meant by contemporary crime in the field of cybersecurity? Explain with examples.	**03**
	(b)	What are the different realms of the cyber world?	**04**
	(c)	Explain the different types of contaminants that affect data and the techniques used for its destruction.	**07**
		OR	
Q.4	**(a)**	List and explain three typical attack vectors used in cybersecurity.	**03**
	(b)	What are the main traditional problems associated with computer crime? Provide an explanation for each.	**04**
	(c)	What is cybercrime? Describe the various types of cybercrime.	**07**

Q.5 (a) What is an SQL Injection attack? Explain how it works. **03**

(b) What is the difference between a virus and a worm? **04**

(c) Explain in detail the concepts of DoS and DDoS attacks. **07**

OR

Q.5 (a) What is steganography and Explain types of steganography. **03**

(b) What are attacks on wireless networks? Describe the different types of attacks that can target wireless networks. **04**

(c) Describe what a Trojan and a backdoor are, and give the differences between them. **07**

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