Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER– V EXAMINATION – SUMMER 2026

Subject Code:3150714 Date:21-05-2026

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

			MARKS
Q.1	**(a)**	Explain: Packet Filter.	**03**
	(b)	Define Network Address Translation and Port Forwarding. Differentiate between the two.	**04**
	(c)	Explain Netcat as backdoor. Briefly explain basic commands available in Netcat.	**07**
Q.2	**(a)**	Define Network Vulnerability with example.	**03**
	(b)	Explain use of NMAP with its commands.	**04**
	(c)	What is an Intrusion Detection System? Explain snort in detail.	**07**
		OR	
	(c)	Explain types of firewalls. How packet filters are different than other firewall types?	**07**
Q.3	**(a)**	Define web vulnerability and explain any two in detail.	**03**
	(b)	Discuss Zed Attack Proxy as web application inspection tool.	**04**
	(c)	What is the use of Password Cracking and Brute-Force Tools in ethical hacking? Discuss any one of the below tools in detail: John the Ripper or HTC-Hydra.	**07**
		OR	
Q.3	**(a)**	Explain usage of HTTP utilities - CURL, OpenSSL & Stunnel.	**03**
	(b)	Discuss Sqlmap as web application inspection tool.	**04**
	(c)	Explain w3af - Web Application Attack and Audit Framework in detail.	**07**
Q.4	**(a)**	Define Attack Vector with example.	**03**
	(b)	Discuss IT Act 2000 with respect to electronic authentication method.	**04**
	(c)	Discuss Buffer Overflow as Attack Vector with Example.	**07**
		OR	
Q.4	**(a)**	List types of Cyber Crimes. Explain any one in detail.	**03**
	(b)	Enlist any four Offenses and corresponding Punishments under IT Act 2000.	**04**
	(c)	Discuss Attacks on Wireless Networks with its preventive measures in detail.	**07**
Q.5	**(a)**	Differentiate between Virus and Worms.	**03**
	(b)	Explain usage and types of Keyloggers.	**04**
	(c)	Explain Kismet as wireless network vulnerability assessment tool.	**07**
		OR	
Q.5	**(a)**	Explain DDOS Attack and prevention techniques.	**03**
	(b)	Explain Traffic Probe and Vulnerability Probe.	**04**
	(c)	Explain Ettercap as vulnerability assessment for man-in-middle attack in LAN.	**07**

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