

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-V EXAMINATION – WINTER 2025****Subject Code:3150714****Date:17-11-2025****Subject Name:Cyber Security****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) Define Threat, Risk and Vulnerability.	03
	(b) Write a short note on Network Reconnaissance.	04
	(c) Explain Injection tools like Tcpdump, Windump and Wireshark.	07
Q.2	(a) Compare packet filter and network firewall.	03
	(b) Define DataPipe, Fpipe, and Winrelay.	04
	(c) What is Nmap? Explain any three functionalities of Nmap with commands.	07
	OR	
	(c) What is Netcat? Explain its use with suitable examples.	07
Q.3	(a) Explain NAT.	03
	(b) Explain use of HTC-Hydra and John the Ripper	04
	(c) Define web vulnerability and how can we overcome it by use of DVWA? Illustrate the example.	07
	OR	
Q.3	(a) Explain Port forwarding.	03
	(b) Define brute force attack. List use of pwdump.	04
	(c) List five Application Inspection tools, explain tcpdump and windump two in detail.	07
Q.4	(a) List the securities to be followed by Mobile Device Users.	03
	(b) Describe what steganography is and how it is used in cybercrime. Discuss its implications for digital forensics and investigations	04
	(c) What is ZAP ? Explain features of zap in detail.	07
	OR	
Q.4	(a) Distinguish between security and privacy in cyber security.	03
	(b) Explain the key differences between computer viruses and worms, and discuss the methods of propagation and potential harm they can cause to computer systems.	04
	(c) Define purpose of SNORT, give example of SNORT.	07
Q.5	(a) Describe what hacking means, and briefly explain how it is a common form of cybercrime.	03
	(b) Describe what attack vectors are and provide examples of common attack vectors used by cybercriminals.	04
	(c) Analyze the significant provisions of the Indian IT Act 2000 and their impact on regulating cyber activities and enhancing cybersecurity in India.	07

OR

- Q.5**
- (a)** How key loggers are used by Cyber criminals share your views. **03**
 - (b)** Explain what DoS and DDoS attacks are, how they are executed, and the potential consequences for targeted systems or websites. **04**
 - (c)** Highlight the differences and similarities between traditional computer crimes and modern cybercrimes, and discuss the reasons behind the evolution of these crimes **07**
