Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
M.SC (CS)- INTEGRATED– SEMESTER V- EXAMINATION –WINTER-2023

Subject Code:1350304   **Date: 05/12/2023**
Subject Name: Fundamental of 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. **Use of simple calculators and non-programmable scientific calculators are permitted.**

Q.1	**(a)**	How to express Vulnerability? Give small example.	**03**
	(b)	Explain the significance of Nmap? Explain different functionality with its command in detail.	**04**
	(c)	Explain Following terms: 1. Traffic Probe 2. Banner / Version Check 3. Hping 4. Datapipe 5. Network Reconnaissance 6. WinRelay 7. Fpipe	**07**
Q.2	**(a)**	Compare Stateless Vs Stateful Firewalls.	**03**
	(b)	Explain the practical important of Tcpdump and Windump with example.	**04**
	(c)	Why port forwarding is required? Describe port forwarding with its types in detail.	**07**
		OR	
	(c)	Describe Debit card fraud that can be done through mobile or other wireless devices.	**07**
Q.3	**(a)**	Explain the purpose of IDS and IPS with architecture.	**03**
	(b)	What can you say about Curl, OpenSSL, Stunnel and Zed Attack Proxy?	**04**
	(c)	What problems can occur to use John the Ripper, L0htcrack and Pwdump? How they can be solved?	**07**
		OR	

Q.3	**(a)**	1.What is the name of the website where you can download the Kali Linux ISO file?
		   a) kali.org b) kali.com c) kali.net d) kali.io
		 2.What are the two options for starting the installation of Kali Linux from the boot screen?
		   a) Graphical install or Install (Text-Mode) b) Live install or Install (Command-Line)
		   c) Standard install or Install (Advanced) d) Basic install or Install (Custom)
		 3.What do you mean by nmap -open 192.168.1.1?
			03

	(b)	Explain the web vulnerability tools like Nikto and W3af.	**04**
	(c)	Can you explain what is happening in Wireshark and how do we use Wireshark to find a password in network?	**07**

Q.4	(a)	Describe the aim and objective of Indian IT ACT 2000.	03
	(b)	How can you implement Digital Forensics?Expain with example.	04
	(c)	Write a short note on Hacking, Attack vectors, Cyberspace and Criminal Behavior.	07

OR

Q.4	(a)	What do you mean by Netcat? Explain Following terms. 1.nc -v l p 1200 2. nc -v l p 1200 < file.txt 3.nc www.gtu.ac.in 80	03
	(b)	Define the Cyber Crime in your own word. Explain the different type of classification of Cyber Crime.	04
	(c)	What do you mean by Network Address Translation and Kismet?Explain with poper example.	07
Q.5	(a)	How can you implement SQL injection ? Explain clearly with example.	03
	(b)	What can you say about Incident Response. Explain it process flow with appropriate diagram.	04
	(c)	(i) Explain different attacks on wireless network. (ii)Which tools are used for password cracking?	07

OR

Q.5	(a)	Compare Software keyloggers and Hardware keyloggers.	03
	(b)	What do you mean by Steganography?Explain with example.	04
	(c)	(i) How can we prevent DDOS attack? (ii)How Buffer overflow attack works?	07

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