GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER - III EXAMINATION - WINTER 2025

Subject Code: MC03094161   **Date: 24-11-2025**

Subject Name: Cyber Security and Forensic

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. Use of simple calculators and non-programmable scientific calculators are permitted.

			Marks
Q.1	**(a)**	What is cyber-attacks? Explain active and passive attack?	07
	(b)	What is CIA Triad? Explain it in brief.	07
Q.2	**(a)**	Discuss importance of Wireshark and its features in detail.	07
	(b)	Explain types of Firewall with advantages and disadvantages.	07
		OR	
	(b)	Explain SNORT-IDS. How does snort work?	07
Q.3	**(a)**	Describe Malware analysis in brief.	07
	(b)	Explain in detail password cracking tool Hashcat.	07
		OR	
	(a)	Explain in detail password cracking tool John The Ripper (JTR)	07
	(b)	What is Metasploit? Discuss Various components of Metasploit?	07
Q.4	**(a)**	Explain Chain of Custody in Digital Forensics.	07
	(b)	What is hashing in cryptography? List out hashing algorithm and Explain any one.	07
		OR	
	(a)	Discuss about Timeline Analysis & Why Does it matter in Digital Investigations?	07
	(b)	What is FTK Imager? How to Create a Forensic Image with FTK Imager?	07
Q.5	**(a)**	What is browsing forensics? List out the Challenges in browser forensics.	07
	(b)	What is cyber security report? How to create it?	07
		OR	
	(a)	What is Email Forensics? How to conduct email forensics investigation?	07
	(b)	Explain DNS Spoofing or DNS Cache poisoning.	07

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