

GYANMANJARI INNOVATIVE UNIVERSITY

GYANMANJARI INSTITUTE OF TECHNOLOGY

M. Tech.-End Semester Examination (ESE)- Summer-2026

Enrollment No.: _____

Subject Code: METCS12509

Date: 14-05-2026

Subject Name: Digital Forensics and Investigations

Semester: 02

Time: 10:30 AM to 01:30 PM

Total Marks: 100

Instructions:

1. Question No. 1 is compulsory.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		Marks
Q.1	(a) Explain the nature and special properties of digital evidence.	10
	(b) Explain the principles of data acquisition and types of acquisition methods.	10
Q.2	(a) Explain computer forensic rules, procedures, and legal issues with examples.	10
	OR	
	(a) Describe data duplication techniques and validation methods in forensic investigation.	10
	(b) Explain various network attacks and their forensic implications.	10
	OR	
	(b) Explain email header analysis and email spoofing detection techniques.	10
Q.3	(a) Describe network traffic analysis techniques used in investigations.	10
	(b) Discuss phishing attacks and metadata examination in email forensics.	10
	OR	
Q.3	(a) Explain wireless attack vectors and encryption standards.	10
	(b) Explain mobile device acquisition methods and data extraction techniques.	10
Q.4	(a) Discuss the role of AI and Machine Learning in digital forensics.	10
	(b) Discuss disk and media forensics along with system understanding.	10
	OR	
Q.4	(a) Discuss SIM card forensics and deleted data recovery techniques.	10
	(b) Describe MITM attacks and packet sniffing in wireless networks.	10
Q.5	(a) Discuss web attack investigation techniques and tools.	10
	(b) Analyze Business Email Compromise (BEC) attacks and incident response strategies.	10
	OR	
Q.5	(a) Explain cloud and backup forensics challenges in mobile investigations.	10
	(b) Describe email encryption, digital signatures, and legal compliance issues.	10