GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VII EXAMINATION – SUMMER 2025

Subject Code:3170725   **Date:23-05-2025**
Subject Name: Digital forensics
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 Challenges of Digital Forensics.	**03**
	(b)	Explain the role of a cyber forensic investigator.	**04**
	(c)	Explain Main Memory and Auxiliary Memory with example.	**07**
Q.2	**(a)**	Explain Flynn's Classification of computer.	**03**
	(b)	Differentiate Live and Dead system forensic	**04**
	(c)	Explain Locard's Exchange Principle with suitable scenario.	**07**
		OR	
	(c)	Explain Digital Forensic Process.	**07**
Q.3	**(a)**	Explain the term "chain of custody" in the context of digital forensics.	**03**
	(b)	Explain forensic cloning of evidence.	**04**
	(c)	Explain Hashing concepts to maintain integrity of evidence.	**07**
		OR	
Q.3	**(a)**	Explain Digital evidence.	**03**
	(b)	What is the difference between digital evidence, electronic evidence, and computer evidence?	**04**
	(c)	Explain, how hashing concepts to be used for maintaining the integrity of evidence?	**07**
Q.4	**(a)**	Define sleep, Hibernation and Hybrid sleep.	**03**
	(b)	Explain the relevance of metadata with reference to collected evidence.	**04**
	(c)	Explain most important legal features about digital evidence.	**07**
		OR	
Q.4	**(a)**	Differentiate a restore point and a shadow copy.	**03**
	(b)	Discuss techniques of finding deleted data.	**04**
	(c)	Discuss legal aspects and their impact on digital forensics.	**07**
Q.5	**(a)**	Define Hardware and Software tools for digital forensics.	**03**
	(b)	Explain tool validation in context of quality assurance.	**04**
	(c)	Discuss e-mail header forensic in brief.	**07**
		OR	
Q.5	**(a)**	Explain branches of digital forensics.	**03**
	(b)	Explain various tool selection methods in context of digital forensic.	**04**
	(c)	Explain the use of digital forensic in social networking sites.	**07**

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