

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (NEW) EXAMINATION – SUMMER 2024

Subject Code:3170725

Date:30-05-2024

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) What is Digital Forensics? List out uses of Digital Forensics.	03
	(b) What are the 4 steps of the forensic process? Describe it.	04
	(c) Explain Locard's Exchange Principle with suitable example.	07
Q.2	(a) Draw and explain Control Unit of basic computer.	03
	(b) Explain Bits, Bytes and Numbering scheme.	04
	(c) What are the requirements to set up a workstation for digital forensics?	07
<b>OR</b>		
Q.3	(c) Explain role of the forensic examiner in judicial system.	07
	(a) Explain three different types of storage in digital world?	03
	(b) Differentiate Volatile vs. Non-volatile Memory.	04
	(c) Explain importance of photography and notes for documenting the scene.	07
<b>OR</b>		
Q.3	(a) What tools do digital forensic scientists use?	03
	(b) Explain forensic cloning of evidence.	04
	(c) Explain hashing algorithms can be used to verify forensic integrity?	07
Q.4	(a) Describe forensic recovery of deleted data?	03
	(b) What is the difference between a restore point and a shadow copy?	04
	(c) What is the knowledge of legal issues and how they affect digital forensics?	07
<b>OR</b>		
Q.4	(a) How do you write a digital forensic investigation report?	03
	(b) How is quality assurance crucial to the investigation of digital forensic evidence?	04
	(c) Explain the following: (a) IaaS (b) PaaS (c) SaaS	07
Q.5	(a) What is Recycle Bin and its operation?	03
	(b) Electronic data discovery: What is it? How it functions.	04
	(c) What three categories of tools do digital forensic investigators use? Explain it.	07
<b>OR</b>		
Q.5	(a) Define sleep, Hibernation and Hybrid sleep.	03
	(b) Differentiate Accreditation vs Certification.	04
	(c) Name four different forms of web attacks. How are these web-based attacks examined?	07

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