

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2021****Subject Code: 3170725****Date: 27/12/2021****Subject Name: Digital forensics****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. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) What is Digital forensics?	03
	(b) List any four types of web attacks. How are these web attacks investigated?	04
	(c) Explain Locard's Exchange Principle with suitable scenario.	07
Q.2	(a) Draw and explain Control Unit of basic computer.	03
	(b) Explain Flynn's classification of computers.	04
	(c) What is cache memory? Explain direct mapping of cache memory with example.	07
	OR	
	(c) Explain Main Memory and Auxiliary Memory with example.	07
Q.3	(a) What are the main challenges of investigating computer-related crime?	03
	(b) Give the advantages of live collection.	04
	(c) Explain forensic cloning process of evidence with appropriate example.	07
	OR	
Q.3	(a) Explain order of volatility in brief.	03
	(b) What is the difference between digital evidence, electronic evidence, and computer evidence?	04
	(c) Explain Hashing concepts to maintain the integrity of evidence.	07
Q.4	(a) Define sleep, Hibernation and Hybrid sleep.	03
	(b) Explain recycle bin operation.	04
	(c) Describe techniques to remove metadata.	07
	OR	
Q.4	(a) Define restore points and shadow copies.	03
	(b) Explain registry structure in brief.	04
	(c) Describe techniques to find deleted data.	07
Q.5	(a) Write a brief note on eDiscovery.	03
	(b) Explain tool validation in context of quality assurance.	04
	(c) Explain the use of digital forensic in social networking sites.	07
	OR	
Q.5	(a) Write a short note on The Electronic Communications Privacy Act.	03
	(b) Explain various tool selection methods in context of digital forensic.	04
	(c) Explain e-mail header forensic in detail.	07

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – SUMMER 2022****Subject Code:3170725****Date:06/06/2022****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

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|------------|--|-----------|
| Q.1 | (a) Define metadata and recycle bin operation. | 03 |
| | (b) Explain Memory organization in brief. | 04 |
| | (c) Explain the use of digital forensic in social networking sites. | 07 |
| Q.2 | (a) Explain forensic science. | 03 |
| | (b) Explain Quality assurance in detail. | 04 |
| | (c) Explain Locard's Exchange Principle with suitable scenario. | 07 |
| | OR | |
| | (c) Explain The digital forensic process in brief. | 07 |
| Q.3 | (a) Define Hardware and Software tools for digital forensics. | 03 |
| | (b) Give the advantages of live collection. | 04 |
| | (c) Discuss legal aspects and their impact on digital forensics. | 07 |
| | OR | |
| Q.3 | (a) Discuss forensic cloning of evidence. | 03 |
| | (b) Write a note on Electronics discovery. | 04 |
| | (c) Discuss e-mail header forensic in brief. | 07 |
| Q.4 | (a) Which are the computer-related crime? | 03 |
| | (b) Explain tool validation in context of quality assurance. | 04 |
| | (c) Explain Hashing concepts to maintain the integrity of evidence. | 07 |
| | OR | |
| Q.4 | (a) What are the main challenges of investigating computer-related crime? | 03 |
| | (b) Explain Report drafting. | 04 |
| | (c) Define and differentiate Live and dead system forensic. | 07 |
| Q.5 | (a) Explain Digital evidence. | 03 |
| | (b) Discuss techniques of Finding deleted data. | 04 |
| | (c) What is cache memory? Explain direct mapping of cache memory with example. | 07 |
| | OR | |
| Q.5 | (a) Explain electronic evidence. | 03 |
| | (b) Discuss techniques of hibernating files. | 04 |
| | (c) Describe techniques to remove metadata. | 07 |
