

GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Code:3170725

Date:11-12-2024

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) Explain the use of forensic science with an appropriate example.	03
(b) List and Explain in brief about applications of digital forensics.	04
(c) What is Locard's Exchange Principle? How can that principle be used in digital forensics? Explain it with a suitable example.	07
Q.2 (a) Define Active Data, Latent Data and Archival Data.	03
(b) Explain Cloud Computing with its different types of services.	04
(c) Explain forensic cloning process of evidence with an appropriate example.	07
OR	
(c) What is cache memory? Explain direct mapping of cache memory with an example.	07
Q.3 (a) How should a Cell phone obtained from crime scene be handled by a digital forensic scientist?	03
(b) Explain Quality assurance in detail.	04
(c) Provide the appropriate steps of maintaining chain of custody of any digital evidence obtained from crime scene.	07
OR	
Q.3 (a) How should a live PC obtained from crime scene be handled by a digital forensic scientist?	03
(b) How will you document the crime scene?	04
(c) Explain order of volatility.	07
Q.4 (a) What are the steps to restore deleted data?	03
(b) What is Metadata? How can we remove metadata?	04
(c) Explain Hashing concepts to maintain the integrity of evidence.	07
OR	
Q.4 (a) What are the legal provisions against cybercrime?	03
(b) What relevance does metadata have to the evidence collected?	04
(c) Define and differentiate Live and dead system forensic.	07
Q.5 (a) Define sleep, Hibernation and Hybrid sleep.	03
(b) Write a note on report writing in digital forensics.	04
(c) Explain network forensic techniques with examples.	07
OR	
Q.5 (a) Write a brief note on Electronics discovery.	03
(b) What are the most important legal features about digital evidence?	04
(c) Explain the use of digital forensic in social networking sites.	07
