

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER– VII EXAMINATION – SUMMER 2026

Subject Code:3170725

Date:05-06-2026

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.

- Q.1** (a) Discuss the importance of Imaging step in digital forensic process. **03**
(b) Discuss with example: Crime with digital evidence. **04**
(c) What is the Modus Operandi in cyber crime? List any four different types of modus operandi adopted by cyber criminals? Explain any one in details. **07**
- Q.2** (a) Define Data types: 1. Active data 2. Latent data 3. Archival Data. **03**
(b) State the importance of File system in Computer. Give any two differences between FAT and NTFS file system. **04**
(c) Discuss Direct Mapping memory management scheme with example. **07**
- OR**
- (c) Discuss Set -Associative Mapping memory management scheme with example. **07**
- Q.3** (a) Define: 1. Cyber Crime 2. Cyber Crime Scene 3. Cyber Crime Motivation. **03**
(b) Discuss Email header forensic. **04**
(c) Define Live & Dead system forensic. Discuss each one with example. **07**
- OR**
- Q.3** (a) List the challenges in digital forensic process. **03**
(b) Discuss Metadata with example. **04**
(c) Discuss SIMD & MISD computer architecture. **07**
- Q.4** (a) State the importance of maintaining the chain of custody in forensic process. **03**
(b) List the various methods to recover deleted data in computer system. **04**
(c) Write a short note on shadow copy & restore points. **07**
- OR**
- Q.4** (a) Discuss the importance of Quality assurance. **03**
(b) Explain Legal aspects in digital forensics. **04**
(c) Define Network forensic & explain it in detail. **07**
- Q.5** (a) How browser history can play important role in cyber crime investigation? **03**
(b) List various motivations behind cyber crimes. **04**
(c) Explain evidence collection & preservation steps in digital forensic process. **07**
- OR**
- Q.5** (a) Discuss Anti- Digital Forensic process with example. **03**
(b) Why tool validation is an important part in forensic process? Explain with example. **04**
(c) Explain Tool selection methods. **07**
