

**GUJARAT TECHNOLOGICAL UNIVERSITY****ME – SEMESTER – II (New)– EXAMINATION – WINTER-2019****Subject Code: 3722313****Date: 22-11-2019****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.

- Q.1** (a) Define forensics, digital forensics and software forensics. Discuss applications of digital forensics in brief. **07**
- (b) Differentiate criminology and criminalistics. Discuss the role and responsibility of criminalistics. **07**
- Q.2** (a) Discuss the methods to search and seizure of electronic evidence. **07**
- (b) Enlist and discuss the importance of different court orders required for search and seizure of electronic evidence. **07**
- OR**
- (b) Describe the challenges of digital evidences and its representation in court. **07**
- Q.3** (a) Discuss Chain of Custody and evidence management procedure. **07**
- (b) Discuss what care should be taken while analyzing the crime scene and collecting the digital evidences. **07**
- OR**
- Q.3** (a) Discuss Locard's principle on crime scene and its relevance with digital forensics. **07**
- (b) Describe the necessary steps for collecting evidences at crime scene. **07**
- Q.4** (a) Discuss the systematic approach to prepare a forensic case. **07**
- (b) Enlist any four software with its usage in digital forensics. Describe the steps to setup workstation for computer forensics. **07**
- OR**
- Q.4** (a) Enlist network forensic tools and discuss any two tool in brief. **07**
- (b) Discuss the requirements and procedure of preserving network data for network forensics. **07**
- Q.5** (a) Explain how mobile phone as an evidence collected and handled. Describe the potential evidences extracted from smartphone. **07**
- (b) Discuss the legal aspect of digital forensics. Describe the IT act 2008 in brief. **07**
- OR**
- Q.5** (a) Enlist the tools used for mobile forensics. Describe the procedure to extract the data from SIM card. **07**
- (b) Consider the following forensic case study. Explain the detailed digital forensic investigation steps you will take for this case as forensic expert. **07**

An employee of a bank turned over a computer upon exiting from his employer. The managers suspected that this individual had revealed confidential information regarding loan clients and credit information. A computer forensics team was hired to inspect the email server records for deleted email files that might cast light on the individual's actions. In short order, the text of the suspect emails, which showed the former employee's culpability was revealed.

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