

- N. B.: (1) **All** questions are **compulsory**.
(2) Make **suitable assumptions** wherever necessary and **state the assumptions** made.
(3) Answers to the **same question** must be **written together**.
(4) Numbers to the **right** indicate **marks**.
(5) Draw **neat labeled diagrams** wherever **necessary**.
(6) Use of **Non-programmable** calculators is **allowed**.

1. Attempt **any two** of the following: 12

- Why is it necessary to maintain professional conduct during computer investigation? How can this be maintained?
- What are the guidelines for media leak investigations? Mention the steps for investigating media leaks.
- What is disaster recovery plan? Why is it necessary for a computer forensics lab to have a disaster recovery plan?
- What are the different formats for digital evidence? Explain.

2. Attempt **any two** of the following: 12

- Why should the computer incident or crime scene be secured? Who is responsible for securing the scene?
- What are the components of disk drives? Explain.
- Explain the NTFS data streams with examples.
- What criteria must be met so that when new software and hardware become available, testing standards are in place for the lab?

3. Attempt **any two** of the following: 12

- Explain the Linux/UNIX boot process.
- Explain the physical structure of a compact disk.
- How can partitions be hidden? Explain.
- How can unknown graphic formats be identified? Explain.

4. Attempt **any two** of the following: 12

- What are the primary concerns in conducting forensic examination of virtual machines?
- Give an overview of network forensics.
- What are e-mail servers? Explain their role in forensic investigations.
- What is a personal digital assistant? What are the different types of peripheral memory cards used with PDAs?

5. Attempt **any two** of the following: 12

- Explain guidelines for writing reports.
- What technical definitions must be prepared ahead of time for testimony as expert witness? Why should contact with media be avoided during legal actions?
- Explain the guidelines for testifying at hearings.
- Explain the process of carving data manually.