

## IM.Sc. (CSF) (NEP) Sem.-4 Examination

DSC-M-ICSF-244T EA

## Digital Forensics

Duration: 1hr

Total Max. 25

**Question 1 Answer the following questions:**

- i. Define digital forensics. Explain its goals and importance. 5Marks
- ii. List and explain different types of cybercrimes with examples. 5Marks

**OR**

- i. Explain the types and rules of digital evidence. 5Marks
- ii. What is the Difference between Volatile and non-volatile data? 5Marks

**Question 2 Answer the following questions:**

- i. Define bit-stream imaging and discuss its purpose in forensic investigation. 5Marks
- ii. Differentiate between logical and physical data recovery. 5Marks

**OR**

- i. What information can be extracted from browser cache, cookies, and history? 5Marks
- ii. Write a note on metadata investigation in Windows files. 5Marks

**Questions 3: Attempt any five out of six.**

5 Marks

1. What is live response in evidence collection?
2. Mention any one objective of digital forensics.
3. Define Chain of Custody in one line.
4. What is live response in evidence collection?
5. What is cloning?
6. Define: Data Recovery

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Candidate's Seat No : \_\_\_\_\_

**IM.Sc. (CSF) (NEP) Sem.-4 Examination  
DSC-M-ICSF-244T EB  
Drone Forensics**

**Duration: 1hr**

**Total Max. 25**

**Question 1 Answer the following questions:**

- i. Briefly explain the concept of "metadata" in the context of drone forensics and how it might be useful in an investigation. 5Marks
- ii. Briefly explain the key differences between a rotary-wing drone and a fixed-wing drone in terms of design, flight characteristics, and typical uses. 5Marks

**OR**

- i. Explain the concept of a "payload" in the context of drones and provide examples of different types of payloads that can be equipped depending on the application. 5Marks
- ii. Discuss the potential safety risks associated with the growing use of drones in populated areas and suggest strategies to mitigate these risks. 5Marks

**Question 2 Answer the following questions:**

- i. Data storage and retrieval from drones can be complex. Describe different methods used to extract flight logs, sensor data, and camera footage from drone storage devices. 5Marks
- ii. Deleted data from a drone's storage device can sometimes be recovered. Discuss the techniques used for data recovery and the challenges associated with this process. 5Marks

**OR**

- i. Trace the historical evolution of drones, highlighting the key stages in their development. 5Marks
- ii. Preserving evidence is essential in any forensic investigation. Explain the concept of chain of custody and elaborate on specific procedures used to maintain it when dealing with drone evidence. 5Marks

**Questions 3: Attempt any Five out of Six.**

**5 Marks**

1. Mention one advantage and one disadvantage of using drones for commercial purposes.
2. What are two methods used to extract flight logs from a drone's storage.
3. Imagine a scenario where a drone collides with a manned aircraft. What will be two potential consequences of such an incident

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4. When choosing a drone for a commercial application, what are two factors to consider besides payload capacity?
5. List one challenge faced when recovering deleted data from a drone's storage.
6. What is the purpose of maintaining a chain of custody for drone evidence?

.....X.....X.....