

Code No: 156EW**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, August/September - 2024****CYBER CRIME INVESTIGATION AND DIGITAL FORENSICS****(Computer Science and Engineering – Cyber Security)****Time: 3 Hours****Max. Marks: 75**

- Note:** i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

- 1.a) Discuss briefly about the concept of phishing. [2]
- b) What are the characteristics that define the nature of cyber-crime? [3]
- c) What are white collar crimes in the context of cyber-crime? [2]
- d) What constitutes unauthorized access to computers? [3]
- e) What are the best practices for collecting digital evidence? [2]
- f) Why is e-discovery important in cyber-crime investigations? [3]
- g) What are the essential components of a forensic workstation? [2]
- h) List the main components of a network forensic data visualize. [3]
- i) What is the role of laws and ethics in digital investigation? [2]
- j) Discuss about the IPC Act. [3]

PART – B**(50 Marks)**

- 2.a) Explain the key differences between cybercrime and traditional crime.
 - b) Describe common social engineering techniques used by cyber criminals. [5+5]
- OR**
- 3.a) Describe the impact of cybercrime on individuals, businesses, and governments.
 - b) What measures can be taken to prevent and mitigate property cyber-crimes? [5+5]
- 4.a) Explain the steps involved in a typical computer intrusion attack.
 - b) What are the common methods used to distribute viruses and malicious code? [5+5]
- OR**
- 5.a) How can organizations protect against unauthorized access to their systems?
 - b) What steps should be taken immediately after a virus attack is detected? [5+5]
6. Explain the process of investigating E-mail crimes and violations. [10]
- OR**
7. Illustrate about digital evidence collection and data seizure activities in data recovery process in cybercrime scene. [10]

8.a) How do forensic investigators ensure data integrity throughout the investigation process?

b) Describe the principles behind iris and fingerprint recognition in forensic identification. [5+5]

OR

9.a) How does photography assist in forensic ballistics and crime scene documentation?

b) Explain the role of video enhancement tools in forensic video analysis. [5+5]

10.a) How do international laws impact cybercrime investigations conducted across borders?

b) Explain the importance of using write blockers and forensic tools in evidence handling. [5+5]

OR

11.a) Explain the role of timestamps and digital signatures in evidence controls.

b) Explain the Criminal Procedure Code (CrPC) and its role in cybercrime investigations. [5+5]

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Case Paper Aug-2024