

Code No: **R204105D**

R20

SET - 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
IV B. Tech I Semester Advanced Supplementary Examinations March 2025
CYBER SECURITY & FORENSICS

(Computer Science & Engineering and Information Technology)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks

UNIT-I

1. a) Explain the relationship between cybercrime and information security. Why is cybersecurity essential in the modern digital world? [7M]
b) Discuss the different types of cybercriminals and their motives. How do they operate in cyberspace? [7M]

(OR)

2. a) What is cyberstalking? How does it affect victims, and what legal measures exist to prevent it? [7M]
b) Discuss different types of attacks on mobile and cell phones. How can these attacks compromise user privacy? [7M]

UNIT-II

3. a) Explain the concept of phishing. How do attackers use phishing techniques to steal sensitive information? [7M]
b) What are the different methods of password cracking? How can users protect themselves from such attacks? [7M]

(OR)

4. a) Explain how Trojan horses and backdoors work. What are the risks associated with these types of malware? [7M]
b) Describe the differences between DoS and DDoS attacks. How do these attacks disrupt online services? [7M]

UNIT-III

5. a) Explain the process of email investigation and tracking. How can investigators trace the origin of an email? [7M]
b) Discuss the methods used for recovering deleted emails in a cybercrime investigation. [7M]

(OR)

6. a) What are the legal and technical challenges involved in the search and seizure of computers during a cybercrime investigation? [7M]
b) Discuss different techniques used for password cracking? [7M]

UNIT-IV

7. a) List and explain some commonly used software tools in computer forensics investigations. [7M]
b) Discuss the challenges and techniques involved in Linux system forensics investigations. [7M]

(OR)

8. a) Explain how graphics forensics and network forensics help in cybercrime investigations. [7M]
b) What are the key techniques used in email forensics? How can investigators trace email sources? [7M]

UNIT-V

9. a) Explain the key provisions of the Indian IT Act related to cybercrime. [7M]
b) Discuss the current state of cybercrime in India. What are the most common cyber offenses? [7M]

(OR)

10. a) What could be the consequences of not addressing the weaknesses in India's Information Technology Act? [7M]
b) Explain the concept of digital signatures. How does the Indian IT Act regulate their use? [7M]
