

Code No: **R194204G**

R19

Set No. 1

IV B.Tech II Semester Regular Examinations, April – 2023
CYBER SECURITY & CRYPTOGRAPHY
(Open Elective for Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 75

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

UNIT I

- 1 a) Discuss the global perspective on cybercrimes. [7]
b) What is Cyber Crime? List the types of cybercriminals. [8]
(OR)
- 2 a) What is the difference between Hacker and cybercriminals? Explain with [7]
examples.
b) Elaborate on different categories of cybercrimes [8]

UNIT II

- 3 a) Differentiate between computer Virus and Worms with two examples each. [7]
b) Define Social Engineering. Describe the classification of Social [8]
Engineering with examples.
(OR)
- 4 a) Write about Steganography with applications. [7]
b) Explain about Trojan Horses and Backdoors in detail with examples. [8]

UNIT III

- 5 a) What are the common techniques which can be used for email [7]
investigation?
b) What are the three methods to preserve a digital evidence? Explain them. [8]
(OR)
- 6 a) Describe the process of IP Tracking. [7]
b) A friend sends an electronic Hallmark greeting card (e-card) to your work [8]
email. You need to click on the attachment to see the card. What should you
do? List major risks associated with this scenario?

UNIT IV

- 7 a) Discuss in detail about Windows System Forensics. [7]
b) Explain various phases in computer forensics/digital forensics. [8]
(OR)
- 8 a) Write short notes on Linux System Forensics. [7]
b) Explain in detail the forensic analysis of E-mail. [8]

UNIT V

- 9 a) What are the limitations of Information Technology Act? [7]
b) What is the basis for the ITA 2000? Give its features. [8]
(OR)
- 10 Explain the following terms according to IT Act 2000: [15]
i) Records as evidence
ii) Proof of electronic agreements
iii) Status of electronic.



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Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
ONE Question from Each unit
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UNIT I

- 1 a) Explain about Vishing and Smishing in detail. [7]
b) Describe the trends in mobile credit card frauds in wireless computing. [8]
(OR)
2 a) What is Cyber Stalking? Explain various types of Stalkers with a case study [9]
b) What is the difference between cyber security and cyberspace? [6]

UNIT II

- 3 a) Discuss about the Legal and Indian perspectives of cyber crimes [7]
b) Describe the following cyber attacks: Buffer overflow attack, Dos and DDoS attack [8]
(OR)
4 a) Explain the mechanism of phishing with an example scenario. [7]
b) How to prevent SQL Injection Attacks? Illustrate [8]

UNIT III

- 5 a) What is email abuse in cyber forensics? How to handle it? [7]
b) What are the methods of collecting digital evidence? Explain them. [8]
(OR)
6 a) What are steps to be taken for search and seizure of digital evidence? [7]
b) Describe the process of E-Mail Tracking. [8]

UNIT IV

- 7 a) Explain FTK Forensic Toolkit. [7]
b) What is the need for Computer Forensics? Describe the process of Audio and Video Analysis in it. [8]
(OR)
8 Describe Computer Forensics Tools with neat explanation. [15]

UNIT V

- 9 a) How digital signature is secured under IT Act? [7]
b) What are the Offences and penalties in Information Technology Act, 2000? [8]
(OR)
10 a) Write the various Amendments to the Indian IT Act. [7]
b) Which section of the IT Act deals with misuse of digital signature? Explain it. [8]



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Time: 3 hours

Max. Marks: 75

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

UNIT I

- 1 a) What are the organizational measures for handling mobile devices? [7]
b) Write a short note on Attack Vector. How it alters the system state? [8]
(OR)
- 2 a) Who are Cyber criminals? Classify them. [7]
b) Discuss in detail about the Botnets. [8]

UNIT II

- 3 a) Explain about traditional techniques of attacks on Wireless Networks. [7]
b) What are the DDoS Attacks and explain how to protect from DDoS attacks. [8]
(OR)
- 4 Explain the following terms related to cyber crimes: i) Cyber defamation
ii) Data Diddling iii) Software Piracy
iv) Identity Theft v) E-mail Bombing/ Mail Bombs [15]

UNIT III

- 5 a) Discuss in detail about eDiscovery in digital forensics. [7]
b) What are the tools used for investigation in cyber security? Give their features [8]
(OR)
- 6 a) How do you preserve forensic evidence? What care must be taken for it? [7]
b) How is digital evidence collected at a crime scene? Illustrate. [8]

UNIT IV

- 7 a) Explain about Autopsy. Give its role in computer forensics. [7]
b) How do you prepare a computer forensic investigation? Explain. [8]
(OR)
- 8 a) What is the Chain of Custody concept? How it is related to forensics? [7]
b) Write a short note on Network Forensics. [8]

UNIT V

- 9 a) What are the challenges to Indian law? What is the cybercrime scenario in India? [7]
b) What are the legal and Indian perspective of cyber crime? [8]
(OR)
- 10 a) Discuss the impact of Digital signatures in ITA 2000. [7]
b) What are the positive aspects of the ITA 2000? Explain. [8]



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Time: 3 hours

Max. Marks: 75

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

UNIT I

- 1 a) Which type of cyber-attacks may occur in the process of mobile banking? Explain them. [7]
b) What are the security issues in mobile information security? [8]
(OR)
- 2 a) List the security challenges posed by Mobile devices. [7]
b) Define Cyber stalking. How it works? Explain with real life example. [8]

UNIT II

- 3 a) What are the tips for safety and security while using the computer in a cybercafé? [7]
b) Define the terms Mobile phone theft, Mishing and Hacking Bluetooth. [8]
(OR)
- 4 Explain the following terms related to cyber crimes: i) Internet Time Theft
ii) Newsgroup Spam iii) Industrial Spying
iv) Credit card Frauds v) E-mail Bombing/ Mail Bombs [15]

UNIT III

- 5 Illustrate Encryption and Decryption Methods. How these methods are used in cyber crime investigation? [15]
(OR)
- 6 a) Discuss in detail about search and seizure in cyber forensics. [7]
b) Explain the process of E-Mail Recovery. [8]

UNIT IV

- 7 a) Describe Validating and Testing Forensics Software. [7]
b) Describe the steps in preparation of computer investigation. [8]
(OR)
- 8 a) Write a short note on Antiforensics. [7]
b) Explain the challenges in Computer forensics. [8]

UNIT V

- 9 What is cyber crime? Explain the challenges faced by our legal system in regard to cyber crime. [15]
(OR)
- 10 a) Discuss in detail about digital signature in IT Act. [7]
b) Explain the impact of oversights in ITA 2000 regarding digital signatures. [8]

