Code No: **R204105S** **R20** **Set No. 1**

IV B.Tech I Semester Regular Examinations, January – 2024

CYBER SECURITY

(OE-III: CE, EEE, ME, ECE, AME, MM, AGE, CSE-CS, CSE-IOTCSIBCT, CSE- IOT, FE, PHARM & CS)

Time: 3 hours **Max. Marks: 70**

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

1 a) How has the landscape of crime changed with the advent of technology, leading to the emergence of cybercrime? [7]

b) How do international collaborations and treaties contribute to the fight against global cyber threats? [7]

(OR)

2 Provide an analysis of the different classifications of cybercrimes. [14]

UNIT - II

3 Define social engineering. How can individuals and organizations defend against social engineering attacks? [14]

(OR)

4 How cyber cafes are becoming root causes of various cyber crimes? Illustrate with few cases. [14]

UNIT - III

5 a) Identify and discuss the unique security challenges posed by mobile devices. How do these challenges differ from those associated with traditional computing devices? [7]

b) What strategies can organizations adopt to secure their networks in the BYOD (Bring Your Own Device) era? [7]

(OR)

6 a) How can organizations strike a balance between providing flexibility to employees and maintaining cyber security standards? [7]

b) Discuss the role of biometric security features on mobile devices. [7]

Code No: **R204105S** **R20** **Set No. 1**

UNIT - IV

7 a) Discuss the role of proxy servers and anonymizers in cybercrime. [7]

b) How are phishing and identity theft interconnected, and what makes them significant in the realm of cybercrimes? [7]

(OR)

8 a) Explain the concept of steganography and its use in concealing information in cybercrimes. [7]

b) Explore the various methods used in attacks on wireless networks. [7]

UNIT - V

9 a) Explore the methods and challenges of conducting forensics analysis on emails. [7]

b) Define forensics auditing and its significance in cyber security. How does forensics auditing contribute to the prevention and detection of cyber incidents? [7]

(OR)

10 a) Outline the stages of the digital forensic life cycle. How does each stage contribute to the overall success of a computer forensics investigation? [7]

b) Explore the relationship between computer forensics and steganography. [7]

Code No: **R204105S** **R20** **Set No. 2**

IV B.Tech I Semester Regular Examinations, January – 2024

CYBER SECURITY

(OE-III: CE, EEE, ME, ECE, AME, MM, AGE, CSE-CS, CSE-IOTCSIBCT, CSE- IOT, FE, PHARM & CS)

Time: 3 hours **Max. Marks: 70**

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

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UNIT - I

1 a) Explore the historical origins of the term "cybercrime" and its evolution over time. [7]

b) How can netizens protect themselves from common cyber threats? [7]

(OR)

2 How do legal perspectives vary globally and what challenges arise in prosecuting cybercriminals? [14]

UNIT - II

3 Analyze the nature and impact of cyber stalking. Focus on the various ways of preventing cyber stalking. [14]

(OR)

4 What are botnets? “ Botnets are the fuel for cybercrimes”. Justify with a case study. [14]

UNIT - III

5 a) What measures can individuals and organizations take to protect against credit card fraud on mobile devices? [7]

b) Analyze how mobile devices contribute to corporate espionage. What measures can businesses implement to protect sensitive information from being compromised through mobile devices? [7]

(OR)

6 a) Assess the security implications of employees using mobile devices within organizational networks. [7]

b) Discuss the vulnerabilities of wireless networks that impact the security of mobile devices. [7]

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Code No: **R204105S** **R20** **Set No. 2**

UNIT - IV

7	a)	Explore the methods employed in password cracking attacks.	[7]
	b)	Explain the concept of buffer overflow and its exploitation in cybercrimes.	[7]
		(OR)	
8	a)	Define Trojan horses and backdoors and examine their role in cybercrimes.	[7]
	b)	How can individuals recognize and protect themselves against sophisticated phishing attacks?	[7]

UNIT - V

9	a)	How is digital evidence collected, preserved, and analyzed in computer forensics investigations?	[7]
	b)	Explain the relevancy of OSI 7 Layer Model to computer forensics.	[7]
		(OR)	
10	a)	Why is maintaining a secure chain of custody crucial for the admissibility of digital evidence in legal proceedings?	[7]
	b)	Identify and analyze the challenges faced by computer forensics professionals.	[7]

Code No: **R204105S** **R20** **Set No. 3**

IV B.Tech I Semester Regular Examinations, January – 2024

CYBER SECURITY

(OE-III: CE, EEE, ME, ECE, AME, MM, AGE, CSE-CS, CSE-IOTCSIBCT, CSE- IOT, FE, PHARM & CS)

Time: 3 hours **Max. Marks: 70**

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

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UNIT - I

1 a) Discuss the relationship between cybercrime and information security. [7]

b) How do cybercriminals strategize and execute their attacks? Explain with an example. [7]

(OR)

2 Examine the specific challenges and trends of cybercrime in India. [14]

UNIT - II

3 Explore the role of cyber cafes in facilitating cybercrimes. Illustrate with a case study. [14]

(OR)

4 What are the common attack vectors in cyber security? How the attack vector is launched in cyber security? [14]

UNIT - III

5 a) How do emerging technologies such as 5G influence the landscape of mobile-related cybercrimes? [7]

b) Outline best practices for securing mobile applications. How can developers and users contribute to the overall security of mobile apps? [7]

(OR)

6 a) Discuss the importance of secure authentication services for mobile devices. [7]

b) How do laptops contribute to the overall threat landscape and what security measures are essential for their protection? [7]

Code No: **R204105S** **R20** **Set No. 3**

UNIT - IV

7 a) How do cybercriminals use phishing techniques to deceive individuals and organizations? [7]

b) Discuss about tools that facilitate anonymity for cybercriminals? [7]

(OR)

8 a) Differentiate between viruses and worms and discuss their characteristics. [7]

b) Discuss the vulnerabilities associated with SQL injection attacks. How can developers secure their applications against SQL injection vulnerabilities? [7]

UNIT - V

9 a) How does digital forensics differ from traditional forensic science? Explain with examples. [7]

b) How can forensic investigators counteract anti-forensic techniques during an investigation? [7]

(OR)

10 a) Define network forensics and its role in investigating cyber incidents. [7]

b) How can computer forensics address challenges posed by social media in digital investigations? [7]

Code No: **R204105S** **R20** **Set No. 4**

IV B.Tech I Semester Regular Examinations, January – 2024

CYBER SECURITY

(OE-III: CE, EEE, ME, ECE, AME, MM, AGE, CSE-CS, CSE-IOTCSIBCT, CSE- IOT, FE, PHARM & CS)

Time: 3 hours **Max. Marks: 70**

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

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UNIT - I

1 a) Explore the motivations and characteristics of cybercriminals. [7]
b) Explore the tactics and methodologies cybercriminals employ in planning and executing attacks. [7]

(OR)

2 a) Assess the effectiveness of the ITA 2000 in addressing contemporary cyber threats. [7]
b) How do cybercriminals leverage botnets and what counter measures can be taken? [7]

UNIT - II

3 What advantages does cloud computing offer? Elaborate on the five security issues relating to cloud computing. [14]

(OR)

4 Why is planning important in cyber security? What are different challenges in tracking cyber offences? [14]

UNIT - III

5 a) Discuss the factors contributing to the widespread adoption of mobile and wireless devices. How has the proliferation of these devices impacted the threat landscape for cybercrimes? [7]
b) How can organizations adapt their security policies to address the unique challenges posed by mobile devices? [7]

(OR)

Code No: **R204105S** **R20** **Set No. 4**

6	a)	Explain the significance of registry settings for mobile devices in terms of security.	[7]
	b)	Examine the privacy implications of location-based services on mobile devices.	[7]

UNIT - IV

7	a)	Describe various mechanisms adopted by criminals for password cracking.	[7]
	b)	Define and distinguish between Denial of Service (DoS) and Distributed Denial of Service (DDoS) attacks.	[7]
		(OR)	
8	a)	Analyze the functionality and impact of keyloggers and spyware in cybercrimes.	[7]
	b)	Define identity theft and discuss its implications for individuals and organizations.	[7]

UNIT - V

9	a)	Analyze the standards and best practices for developing information security policies.	[7]
	b)	Explore the legal rights and liabilities of ISPs in the context of cyber laws.	[7]
		(OR)	
10	a)	Discuss the systematic approach to initiating a computer forensics investigation.	[7]
	b)	Explore the legal and ethical considerations that computer forensics professionals must adhere to.	[7]