

EVEN SEMESTER EXAMINATION, 2023 – 24

IInd yr B.Tech.

Cyber Security

Duration: 3:00 hrs

Max Marks: 50

Note: - Attempt all questions. All Questions carry equal marks. In case of any ambiguity or missing data, the same may be assumed and state the assumption made in the answer.

Q 1.	<p>Answer any two parts of the following.</p> <p>a) Define cyber warfare and provide two examples of cyber warfare tactics used by nation-states.</p> <p>b) Explain the CIA Triad in the context of cybersecurity and provide an example for each component.</p> <p>c) Explain the concept of defense-in-depth (layers of security) in cybersecurity and provide three examples of methods used to implement this strategy.</p>	5x2=10
Q 2.	<p>Answer any two parts of the following.</p> <p>a) Define the digital forensics lifecycle and briefly explain each phase. Provide an example illustrating the application of one phase in a real-world forensic investigation.</p> <p>b) Discuss the historical background of cyber forensics and highlight key milestones or events that have shaped its development as a field of study and practice.</p> <p>c) Identify and explain two special techniques used in forensics auditing to detect and investigate financial fraud or accounting irregularities.</p>	5x2=10
Q 3.	<p>Answer any two parts of the following.</p> <p>a) Discuss the security challenges posed by mobile devices in the context of organizational security policies and measures in the mobile computing era. Provide two examples of security risks associated with the proliferation of mobile devices in the workplace and suggest organizational measures to mitigate these risks.</p> <p>b) Explain the trends in mobility and their implications for organizational security. Provide two examples of emerging trends in mobile computing and discuss their potential security implications for organizations.</p> <p>c) Describe the authentication service security measures implemented to protect mobile devices and users from unauthorized access. Provide two examples of authentication methods used to authenticate users on mobile devices and discuss their strengths and weaknesses.</p>	5x2= 10
Q 4.	<p>Answer any two parts of the following.</p> <p>a) Discuss the security and privacy implications of social media marketing for organizations. Provide two examples of security risks and perils associated with social media marketing strategies and propose measures organizations can take to mitigate these risks.</p> <p>b) Examine the intellectual property (IP) issues in cyberspace and their implications for organizations. Provide two examples of IP-related cybercrimes or violations and discuss their impact on businesses and legal considerations.</p> <p>c) Explore the psychology, mindset, and skills of hackers and cybercriminals. Provide insights into the ethical dimension of cybercrimes and cyber terrorism, and discuss the implications for organizations in addressing these threats.</p>	5x2= 10

Q 5.	Answer any two parts of the following. a) Explain the significance of the National Cyber Security Policy in India and discuss its key objectives and initiatives. Provide two examples of cybersecurity regulations or provisions outlined in the policy and their implications for enhancing cybersecurity in the country. b) Discuss the role of electronic evidence and miscellaneous provisions of the Information Technology (IT) Act, 2008, in combating cybercrime in India. Provide two examples of offenses under the IT Act and explain the legal provisions and penalties associated with each offense. c) Analyze the challenges and constraints of internet governance in India and discuss strategies to address these issues. Provide two examples of internet governance challenges faced by India and propose measures to overcome them.	5x2= 10
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