



Mid Term (EVEN) Semester Examination March 2025

Roll no.....

Name of the Course: MTech(CSE)
Name of the Paper: Applied Cyber Security
Paper Code: MCS - 232

semester: II

Time: 1.5 hour

Maximum Marks: 50

Note:

- (i) Answer all the questions by choosing any one of the sub questions
- (ii) Each question carries 10 marks.

Q1. (10 Marks)
a. Explain the concept of "Malware." Describe the different types of malware and their methods of infection and propagation. [C01]

OR

b. Explain the importance of "Security Patches" in maintaining system integrity. How do they contribute to the overall security posture of an organization or individual user? [C01]

Q2. (10 Marks)

a. Explain the concept of "Bot Networks" and their use in cybercrime, particularly in DDoS attacks. How do botnets function, and what are their major risks to individuals and organizations? [C01]

OR

b. Define "Social Engineering." Discuss how attackers use manipulation to gain unauthorized access to sensitive information. Provide at least two examples of social engineering tactics. [C01]

Q3. (10 Marks)
a. Explain the concept of Phishing and Spoofing. How can individuals and organizations prevent falling victim to these attacks? [C02]

OR

b. How do Intellectual Property Rights (IPR) laws, including Copyright Law, Patent Law, and Software Licensing, impact cybersecurity and digital rights management? [C02]

Q4. (10 Marks)
a. Discuss the role of international cybersecurity standards such as ISO 27001, GDPR, and HIPAA in ensuring data security and compliance. How do these regulations differ in their approach? [C03]
OR
b. Explain the different roles and positions within an organization that contribute to information security. Discuss the key responsibilities of the Chief Information Security Officer (CISO) and the Security Operations Center (SOC) [C03]

Q5. (10 Marks)
a. Define risk management in cybersecurity. Discuss how organizations identify, assess, and mitigate cybersecurity risks. Illustrate your answer with examples of common cybersecurity threats and their potential impacts on business. [C03]

OR

b. Compare and contrast different security management models. How do these models help organizations in risk management and compliance.[C03]