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School of Computing Science and Engineering**BCA with Industry Oriented Specialization in Computer Networks and Cyber Security
Semester End Examination - Nov 2023****Duration : 180 Minutes
Max Marks : 100****Sem III - MCAE2421 - Ethical Hacking**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Define password cracking and its significance in cybersecurity. K1 (2)
- 2) Differentiate a Denial-of-Service (DoS) attack and a Distributed Denial-of-Service (DDoS) attack. K2 (4)
- 3) Discuss concept of plaintext and ciphertext in the context of cryptography K2 (6)
- 4) Explain Hacking and list out the different type hackers along with suitable example K3 (9)
- 5) Explain the differences between a worm, a virus, and a Trojan Horse in terms of their propagation methods and payloads. K3 (9)
- 6) Evaluate the effectiveness of different mitigation techniques against DoS attacks. K5 (10)
- 7) Apply three common port scanning techniques used to identify open ports on a target system. K4 (12)
- 8) Explain the Key Generation, Encryption and Decryption of DES algorithm in detail. K5 (15)
- 9) Explain how different types of web application attacks exploit vulnerabilities? K5 (15)
- 10) In a global context, what collaborative initiatives are being undertaken by governments, industries, and cybersecurity experts to collectively address the escalating risks posed by active threats, passive threats, and exploits? Explain K6 (18)