

**Q.2 Answer the following questions related to Cyber Threats and Defense Mechanisms:**

- (a) Explain the impact of Distributed Denial-of-Service (DDoS) attacks on network infrastructure.
- (b) What is a zero-day vulnerability? How can organizations protect against it?
- (c) Discuss the role of ethical hacking and penetration testing in cybersecurity.
- (d) What are security policies, and how do they help organizations maintain cybersecurity?
- (e) How does blockchain technology enhance cybersecurity in financial transactions?

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