SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech. IV Year I Semester Regular & Supplementary Examinations October/November 2025
INFORMATION SECURITY MANAGEMENT
CSE (Internet of Things and Cyber security Including Block Chain Technology)

Time: 3 Hours   **Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1	a	Define Information Security. List out its characteristics.	CO1	L2	6M
	b	Describe the key components of an information security system.	CO1	L2	6M

OR

2	a	Explain the phases of Security SDLC and their relevance.	CO1	L2	6M
	b	Illustrate the concept of "Subject of Attack" and "Object of Attack."	CO1	L3	6M

UNIT-II

3	a	Explain and categorize various threats to information security with suitable examples.	CO2	L3	6M
	b	Analyze the steps involved in identifying vulnerabilities in information systems.	CO2	L4	6M

OR

4	a	Compare the roles of laws, ethics, and policies in security management.	CO2	L4	6M
	b	Discuss the role of education and awareness in ethical computing.	CO2	L2	6M

UNIT-III

5	a	Explain the process of risk identification and illustrate with appropriate examples.	CO3	L3	6M
	b	Discuss various metrics used for assessing risk.	CO3	L2	6M

OR

6		What is Access Control Mechanism? Explain in detail how Information flow and confinement problem works in this mechanism.	CO3	L3	12M

UNIT-IV

7	a	Explain the blueprint for designing a secure system.	CO4	L2	6M
	b	Analyze the significance of ISO 17799/BS7799 standards in developing security policies.	CO4	L4	6M

OR

8	a	Explain the VISA International Security Model.	CO4	L2	6M
	b	Design the components of Contingency Planning with neat diagram	CO4	L5	6M

UNIT-V

9	a	Explain the working of Internet firewalls with a diagram.	CO5	L2	6M
	b	Discuss the classification of Intrusion Detection Systems (IDS).	CO5	L2	6M

OR

10	a	Explain how password management enhances system security.	CO5	L2	6M
	b	Evaluate the steps involved in implementing Physical Access Controls for information assets.	CO5	L5	6M

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