CBCS SCHEME

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BEC714B/BTE714B

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Computer & Network Security

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Define the need for computer security. Explain the principles of security.	5	L1	CO1
	b.	Explain different types of attacks with examples.	5	L2	CO1
	c.	Describe a model for Network Security and its components.	10	L2	CO1
		OR			
Q.2	a.	Describe security approaches and security services.	5	L1	CO1
	b.	Explain how attacks are categorized in terms of passive and active attacks.	5	L2	CO1
	c.	Illustrate a network security model with a diagram and explanation.	10	L2	CO1
		Module – 2			
Q.3	a.	Explain the characteristics of Trojan horses, viruses and worms.	6	L1	CO2
	b.	Describe defenses against malicious logic.	6	L2	CO2
	c.	Explain penetration studies and Vulnerability classification.	8	L2	CO2
		OR			
Q.4	a.	Define Malicious logic and its types.	6	L1	CO2
	b.	Expalin Vulnerability analysis framework with examples.	6	L2	CO2
	c.	Discuss how penetration testing helps identify vulnerabilities in system.	8	L2	CO2
		Module – 3			
Q.5	a.	Define Auditing. Explain anatomy of an auditing system.	6	L1	CO2
	b.	Describe designing an auditing system and a posteriori design.	6	L2	CO3
	c.	Explain intrusion detection models and architecture of IDS.	8	L3	CO3
		OR			
Q.6	a.	Explain Auditing Mechanisms with examples.	6	L1	CO3
	b.	Discuss intrusion response techniques in Network Security.	6	L2	CO3
	c.	Illustrate organization of an intrusion detection system with a diagram.	8	L3	CO3
		Module – 4			
Q.7	a.	Explain Network Security Policies and Development.	6	L1	CO4
	b.	Discuss Network Flooding and measures to anticipate attacks.	6	L2	CO4
	c.	Describe system security policies for networks, users and files.	8	L2	CO4
		OR			
Q.8	a.	Describe availability issues in Network Security.	6	L1	CO4
	b.	Explain authentication mechanisms in system security.	6	L2	CO4
	c.	Illustrate retrospective security techniques for files and processes.	8	L2	CO4
		Module – 5			
Q.9	a.	Explain user security policies for access, files and processes.	6	L1	CO4
	b.	Discuss electronic communications security for users.	6	L2	CO4
	c.	Describe program security design, refinement and implementation.	8	L2	CO4
		OR			
Q.10	a.	Explain user access control policies with examples.	6	L1	CO4
	b.	Describe program security requirements and policy.	6	L2	CO4
	c.	Illustrate secure program design with refinements and implementation steps.	8	L3	CO4

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