LPCET LIBRARY BANGALORE-49

CBCS SCHEME

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21EC742

Seventh Semester B.E./B.Tech. Degree Examination, June/July 2026
Network Security

Time: 3 hrs. Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-1

1	a.	Discuss the principles of security in details, each with example.	(10 Marks)
	b.	With a neat diagram, explain the principle of operation of network security model.	(10 Marks)
		OR	
2	a.	With a neat diagram, explain the active and passive attacks in details.	(10 Marks)
	b.	Discuss in details about security mechanism.	(10 Marks)

Module-2

3	a.	Draw the security socket layer protocol stack and describe the working in details.	(10 Marks)
	b.	Discuss the four stage hand shake protocol with a neat diagram.	(10 Marks)
		OR	
4	a.	What is the importance of HTTPS? Explain the connection initiation and closure of HTTP in details.	(10 Marks)
	b.	Discuss about web security threats.	(10 Marks)

Module-3

5	a.	Draw and explain the flow chart of processing Outbound and Inbound packets of processing model of IP.	(10 Marks)
	b.	With a neat diagram explain the scope of ESP encryption in tunnel mode and transport mode	(10 Marks)
		OR	
6	a.	With a neat diagram explain the Authentication Header protocol.	(10 Marks)
	b.	With a neat diagram, explain Header and payload formats of IKE.	(10 Marks)

Module-4

7	a.	Name three classes of intruders, describe the intruder behavior patterns.	(10 Marks)
	b.	Explain the rule based intrusion techniques intrusion dictation.	(10 Marks)
		OR	
8	a.	Explain types of malicious Software in details.	(10 Marks)
	b.	Describe the 4 phases of virus.	(05 Marks)
	c.	Discuss about the macro viruses.	(05 Marks)

Module-5

9	a.	List out firewall characteristics and explain in brief.	(10 Marks)
	b.	What are the limitations of firewalls?	(05 Marks)
	c.	What are the firewall attacks and counter measures.	(05 Marks)
		OR	
10	a.	Name the types of firewalls and explain any one in details.	(10 Marks)
	b.	Discuss the firewall configurations with neat diagram and example.	(10 Marks)

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