Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

Eighth Semester B.E. Degree Examination, June/July 2023 **Network Security**

Max. Marks: 100

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

Module-1

- Illustrate the use of 4 chief principles necessary for providing security. (10 Marks)
 - The sole aim of the attacker is to maximize financial gain by attacking computer systems. Identify the attack and further elaborate the different varieties of same. (10 Marks)

OR

- What is an active attack? Explain in detail how active attacks are classified. (10 Marks)
 - With real time examples, discuss phishing and pharming. (10 Marks)

Module-2

The web is faced with different types of security threats. Compare the threats on the web.

(10 Marks)

b. Illustrate with diagram the step by step operation of SSL record protocol. Explain each step (10 Marks) briefly.

- Discuss the different alert codes supported by Transport Layer Security (TLS). (10 Marks)
 - With a neat diagram, explain Secure Shell (SSH) protocol stack. (10 Marks)

- (05 Marks) Discuss applications of IP sec.
 - (05 Marks) List and explain IP sec documents. (10 Marks)
 - Explain Transport and Tunnel modes.

- Discuss the purpose of padding and Anti-Replay service. (10 Marks)
 - Illustrate the working of basic combinations of security associations. (10 Marks)

Module-4

Explain 3 classes of intruders with examples, discuss intruder patterns of behavior.

(10 Marks)

With a neat diagram, illustrate the profiles of intruder and authorized users. Also discuss (10 Marks) approaches to intrusion detection.

OR

8 a. Describe the overall taxonomy of software threats (Terminology of Malicious program).
(10 Marks)

b. Explain the anti-virus approaches and also in detail discuss the generations of antivirus software. (10 Marks)

Module-5

9	a.	Explain the four general techniques that the fire wall use to control access.	(05 Marks)
	h	Discuss the capabilities which one within the scope of a firewall.	(05 Marks)
	C.	With a neat diagram, describe the working of packet filtering fire wall.	(10 Marks)

OR

10	a.	Discuss the characteristics of Bastion Host.	(10 Marks)
		Explain Host based and personal firewalls.	(06 Marks)
	C.	Explain the different purposes for which internal fire wall can be used.	(04 Marks)