Graphic Era
HILL UNIVERSITY
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University under section 2(f) of UGC Act, 1956

Term Evaluation (Even) Semester Examination March 2025

Roll no. 2292116

Name of the Course: BCA   Semester: ___VI_____

Name of the Paper: **Network Security and Cyber Law**   Paper Code: TBC 602

Time: 1.5Hours   Maximum Marks: 50

Note:-

(i)   Answer all the questions by choosing any one of the sub questions.

(ii)   Each question carries 10 marks

Q1	(10marks)	
(a)	Explain the goals of network security. How do authentication, confidentiality, and integrity contribute to achieving these goals? Provide examples for each.	CO 1, CO 2
	OR	
(b)	Describe the categories of network security attacks with real-life examples. How do active and passive attacks differ?	
Q2	(10 marks)	
(a)	Kerberos authentication system uses timestamps instead of nonces. Why is this approach considered more efficient? Discuss possible weaknesses of Kerberos authentication.	CO 2, CO 3
	OR	
(b)	Discuss the X.509 Directory Authentication Service. How does it ensure secure communication over networks?	
Q3	(10 marks)	
(a)	Define and explain the SSL and TLS protocols. How do they provide security at the transport layer?	CO 2, CO 3
	OR	
(b)	Discuss the architecture of Secure Electronic Transaction (SET). How does it ensure secure online transactions?	
Q4	(10 marks)	
(a)	Explain Pretty Good Privacy (PGP). How does it ensure confidentiality and authenticity in email security?	CO 2, CO 3
	OR	
(b)	What are the key components of S/MIME? How does it enhance the security of email communications?	
Q5	(10 marks)	
(a)	Discuss security challenges in wireless networks. How does Wireless Transport Layer Security (WTLS) mitigate threats in mobile communications?	CO 2, CO 3
	OR	
(b)	Identify security risks associated with Wi-Fi networks. What strategies can be implemented to counter them?	