

PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY
PANIPAT
DEPARTMENT OF CYBER SECURITY
LESSON PLAN

Subject: Information Security And Data Hiding

Subject Code:: PC-CS-CYS-305A

Semester: 5th

Lecture No	Topic	Mode of Delivery
L1	Security Attack, Security Services, Non- repudiation, access Control	White Board
L2	A model for Internetwork security. Classical Encryption Techniques	Smart Board
L3	DES, Strength of DES, Differential and Linear Cryptanalysis	White Board
L4	Block Cipher Design Principles and Modes of operation	White Board
L5	Blowfish, Placement of Encryption Function	Smart Board
L6	Traffic Confidentiality, key Distribution, Random Number Generation.	Smart Board
L7	Public key Cryptography Principles	Smart Board
L8	RSA algorithm	White Board
L9	Key Management, Diffie-Hellman Key Exchange	White Board
L10	Elliptic Curve Cryptography Associations and Key Management	White Board
L11	Message authentication and Hash Functions	Smart Board
L12	Authentication Requirements and Functions, Message Authentication	White Board
L13	Hash Functions and MACs Hash and MAC Algorithms SHA-512, HMAC.	White Board
L14	IP Security: Overview, IP Security Architecture, Authentication Header	Smart Board
	Payload, Combining Security Associations and Key Management	Smart Board
L15	Introduction: Data hiding models, security and privacy aspects	Smart Board
L16	Digital audio, video, images and text.	White Board
L17	Steganography: Introduction, how it is different from cryptography,	White Board
L18	Classification of steganography algorithms: Transform-based, spatial domain	White Board
L19	Applications of steganography: Covert channels, audio data, military, ecommerce	Smart Board
L20	Watermarking: Introduction, how it is different from steganography	White Board
L21	watermarking algorithms, watermarking applications, limitations in watermarking.	Smart Board
L22	Digital rights management issues: e-commerce, copyright protection	Smart Board
L23	Issues, digital signatures, authentication	Smart Board
L24	case studies, business models.	White Board
L25	Multimedia security and information assurance	White Board
L26	visual cryptography	White Board
L27	key management; Attacks and benchmarks for data hiding systems;	Smart Board
L28	Applications of data hiding technology in medicine, law enforcement	White Board

