

# LESSON PLAN

SUB: CRYPTOGRAPHY & NETWORK SECURITY

BRANCH:- COMPUTER SCIENCE & ENGG.

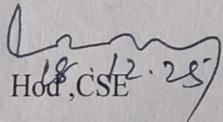
SEMESTER: 6<sup>th</sup>

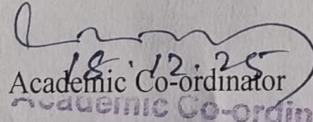
NAME OF FACULTY: SOUDAGAR JENA(GF)

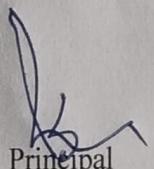


**GOVERNMENT POLYTECHNIC,  
BHADRAK**

SESSION: 2025-26

  
18.12.25  
Hod, CSE

  
18.12.25  
Academic Co-ordinator

  
Principal

Govt. Polytechnic, Bhadrak

DEPARTMENT OF Computer Science & Engg.,

Discipline: Computer Science and Engineering	Semester: 6 <sup>th</sup> , Summer/2025	Name of the Faculty: Soudagar Jena ,Lect Email ID: jenasoudagar@gmail.com
Subject: Cryptography & Network Security Theory-1	No. of Days/week: 04 periods	StartDate: 22.12.2025 EndDate: 18.04.2026

Week	Class Day	Theory Topics
1st	1st	Introduction To CNS
	2nd	The need for security
	3rd	Security approach
	4th	Principles of security
2nd	1st	Types of attacks
	2nd	Revision
	3rd	Plaintext & Cipher Text
	4th	Substitution techniques
3rd	1st	Substitution techniques contd...
	2nd	Transposition techniques
	3rd	Transposition techniques contd..
	4th	Encryption & Decryption
4th	1st	Symmetric key cryptography
	2nd	Asymmetric key cryptography
	3rd	Revision
	4th	Quiz Test
5th	1st	Symmetric key algorithm types
	2nd	Overview of Symmetric key cryptography
	3rd	Data encryption standards
	4th	Data encryption standards contd..
6th	1st	Overview of Asymmetric key cryptography
	2nd	Asymmetric key cryptography contd...
	3rd	The RSA algorithm
	4th	The RSA algorithm contd..
7th	1st	Symmetric & Asymmetric key cryptography

	2nd	Symmetric & Asymmetric key cryptography contd...
	3rd	Digital signature
	4th	Digital signature contd..
8th	1st	Question answer discussion
	2nd	Digital certificates
	3rd	Digital certificates contd..
	4th	Digital certificates contd..
9th	1st	Private key management
	2nd	Private key management contd..
	3rd	PKIX Model
	4th	PKIX Model contd..
10th	1st	Public key cryptography standards
	2nd	Public key cryptography standards contd
	3rd	Revision
	4th	Basic concepts of Internet security protocols
11th	1st	Secure socket layer
	2nd	Secure socket layer contd..
	3rd	Transport layer security
	4th	Secure Hypertext transfer protocol(SHTTP)
12th	1st	Secure Hypertext transfer protocol(SHTTP)contd..
	2nd	Time stamping protocol(TSP)
	3rd	Secure electronic transaction(SET)
	4th	Quiz Test
13th	1st	Authentication basics, Password
	2nd	Authentication Tokens
	3rd	Certificate based authentication
	4th	Biometric authentication
14th	1st	Question Answer Discussion
	2nd	Brief introduction of TCP/IP
	3rd	Firewall
	4th	IP Security
	2nd	Virtual Private Network(VPN)
	3rd	Virtual Private Network(VPN)contd
	4th	Discussion of previous year questions

Sreekanth Jena  
Signature of Faculty