

**SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal
College of Commerce & Economics (AUTONOMOUS)**

Program: Bachelor of Science (Computer Science)			Semester: V	
Course: Computer Science Practical 12 (Information and Network Security and Optimization Technique)			Course Code: USMACSP534	
Teaching Scheme			Evaluation Scheme	
Practical (Hours per week)	Credit	Continuous Assessment (CA)	Semester End Examinations (SEE)	
6	3	20%	80%	
List of Practical: Information and Network Security (Languages use as Python / java)				
Sr. No.	Topic			
1	Write programs to implement the following Substitution Cipher Techniques: - CaesarCipher - Monoalphabetic Cipher			
2	Write programs to implement the following Substitution Cipher Techniques: - VernamCipher - Playfair Cipher			
3	Write programs to implement the following Transposition Cipher Techniques: - Rail Fence Cipher - Simple Columnar Technique			
4	Write program to encrypt and decrypt strings using - DES Algorithm - AES Algorithm			
5	Write a program to implement RSA algorithm to perform encryption / decryption of agiven string.			
6	Write a program to implement the Diffie-Hellman Key Agreement algorithm to generate symmetric keys.			
7	Write a program to create worm.			
8	Write a program to create a virus			
9	Write a program to generate SHA-512			
10	Write a program to calculate HMAC-SHA1 Signature			
List of Practical: Optimization Technique				
Sr. No.	Topic.			
1	LPP by graphical minimization/ maximization of LPP			
2	LPP by simplex (<=)			