

Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat
Department of Computer Science and Engineering
B.Tech III (Semester VI)
Information Security and Cryptography- CS302

Lab Assignment 6

- 1) Design and implement a program to perform encryption and decryption using the Vigenère Cipher with repeating keywords. Consider the following inputs for the program.

For Encryption:

- a) Input1 – Plaintext and Key
- b) Output1 – Ciphertext

For Decryption

Input2- Ciphertext

Output2- Plaintext

- 2) Design and implement a program to perform encryption and decryption using the Vigenère Cipher with a running key (key is as long as plaintext). Consider the following inputs for the program.

For Encryption:

- a) Input3 – Plaintext and Key
- b) Output3 – Ciphertext

For Decryption

- a) Input4- Ciphertext
- b) Output4- Plaintext

- 3) Design and implement a program to perform encryption and decryption using the One time pad. Consider the following inputs for the program.

For Encryption:

- a) Input3 – Plaintext and Generate the using a good Random Number Generator (RNG) Function
- b) Output3 – Ciphertext

For Decryption

- a) Input4- Ciphertext
- b) Output4- Plaintext

Note: Take input from the text file and store the output in the text file for all of the above programs.