

### **Lab work01:**

Suppose you are given a line of text as a plaintext, find out the corresponding Caesar Cipher (i.e. character three to the right modulo 26). Then perform the reverse operation to get the original plaintext.

### **Lab work02:**

Find out the Polygram Substitution Cipher of a given plaintext (Consider the block size of 3). Then perform the reverse operation to get the original plaintext.

### **Lab work03:**

Consider the plaintext “DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY UNIVERSITY OF RAJSHAHI BANGLADESH”, find out the corresponding Transposition Cipher (Take width as input). Then perform the reverse operation to get the original plaintext.

### **Lab work04:**

Find the corresponding double Transposition Cipher of the above plaintext. Then perform the reverse operation to get the original plaintext.

**Lab work05:**

You are supplied a file of a large nonrepeating set of truly random key letters. Your job is to encrypt the plaintext using ONE TIME PAD technique. Then perform the reverse operation to get the original plaintext.

**Lab work06:**

Use the Lehmann algorithm to check whether the given number  $P$  is prime or not?

**Lab work07:**

Use the Robin-Miller algorithm to check whether the given number  $P$  is prime or not?

**Lab work08:**

Write a program to implement MD5 one way hash function.

**Lab work09:**

Write a program to implement Secured Hash Algorithm (SHA) one way hash function.

