



BT (Hons) in Information and Communication Technology Degree Programme

INFORMATION SECURITY-ITIC 3123

Assignment 03

Instructions:

This an individual assignment.

Deadline: 23rd April 2024 on or before 2.30PM.

Submission Type: Hardcopy (Typing answers are not accepted).

Use attached cover page.

QUESTIONS

1. Encrypt the message "THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG" using a Caesar Cipher with a shift of 15.
2. Decrypt the message "DRO VKRSV EHW LQ PB EPXAH" using a Caesar Cipher with an unknown shift. (Note: Mentioned the used shift value).
3. Encrypt the message "ATTACK AT DAWN" using the Playfair Cipher with the key "CRYPTOLOGY."
4. Encrypt the message "WELCOME TO THE WORLD OF CRYPTOGRAPHY" using a randomly generated one-time pad.
5. Encrypt the message "MEET ME AFTER THE LECTURE" using the keyword "CIPHER" in the Vigenère Cipher.
6. Decrypt the message "AAKCTAENLRTOHNSO" using a columnar transposition with the key 52431.
7. Decrypt the message "MQLXX UIW XK BLGCF BRWOTZU" using the keyword "CRYPTO" in the Vigenère Cipher.
8. Encrypt the message "HELLO" using a rail fence cipher with 5 rails.
9. Encrypt the message "COMPUTER SECURITY" using a columnar transposition with the key 31425.
10. Decrypt the message "LCYPGCGU" using the Playfair Cipher with the key "PLAYFAIREXAMPLE."