CNS Lab Internal – 1 Question Bank

1. a) Write a C program that contains a string (char pointer) with a value 'Hello world'. The program should XOR each character in this string with 0 and displays the result.
   b) Explain Block Cipher Operations?
2. a) Write a C program that contains a string (char pointer) with a value 'Hello world'. The program should AND or and XOR each character in this string with 127 and display the result.
   b) Explain SHA-512
3. Write a Java program to perform encryption and decryption using the following algorithms
   a) Ceaser cipher
   b) Explain various Security Attacks?
4. Write a Java program to perform encryption and decryption using the following algorithms
   a) Substitution cipher
   b) Explain Security Mechanisms in detail?
5. Write a Java program to perform encryption and decryption using the following algorithms
   a) Hill Cipher
   b) List and Explain anyone Transposition Techniques
6. a) Write a C/JAVA program to implement the DES algorithm logic.
   b) Draw the Structure of DES?
7. a) Write a C/JAVA program to implement the Blowfish algorithm logic.
   b) Draw the structure of Feistel Cipher?
8. a) Write a C/JAVA program to implement the Rijndael algorithm logic
   b) Explain HMAC in detail?