BAHRIA UNIVERSITY,
(Karachi Campus)
Department of Software Engineering
ASSIGNMENT#01 – Spring 2025

COURSE TITLE:	**Data Encryption and Security**	COURSE CODE:	**CEN-451**
Class:	**BSE – 8A&B**	Shift:	**Morning**
Course Instructor:	**DR. OSAMA REHMAN**	Date:	**13-March-2025**
Due Date:	**18-March-2025**	Marks:	**5.0 Marks**

Instructions:
1. **Attempt all questions.**
2. **Question#1 and Question#2 are "Complex Engineering Problems (CEPs)" having an attributed of in-depth engineering knowledge and no obvious solution, respectively.**
3. **This is an individual effort task.**
4. **Only handwritten answers are accepted.**
5. **Write your full name, registration number and section on the title page.**

Q1. Generate the ciphertext while using the S-DES technique provided that an 8-bit plaintext input 10111001 is provided and a 10-bit key 0111011010 is used. **[CLO#3, CEP, 3.0 marks]**

Q2. For the following two scenarios, investigate and discuss (in steps) how encryption can be obtained in Windows OS while using a suitable tool / approach. **[CLO#5, CEP, 2.0 marks]**
a. Encrypting all contents of a folder.
b. Encrypting all contents of a drive.

Good Luck!