

Lab Assignment-4

Submission Deadline: 5th March, 2023

Write a Perl or Python script that can work as a calculator to carry out the arithmetic operations (+, -, ×, and ÷) on the polynomials that belong to the finite field GF (2^8) using the irreducible polynomial $m(x) = x^8 + x^4 + x^3 + x + 1$. Your script should ask the user to provide input for three items: 1) a bit string that serves as the first operand, 2) another bit string that serves as the second operand, and 3) the operator to be used. The script should output a bit string that is the result of the operation. Your program should handle all possible error conditions.