

## OUTPUT:

Viddeshs-Air:prac3 viddeshgharpure\$ ruby prac3.rb

Highest degree in First Polynomial:: 5  
Highest degree in Second Polynomial:: 7  
Word is of 8 bits.

Enter number of terms in First Polynomial:: 3  
Degree of term number 1:: 1  
Degree of term number 2:: 2  
Degree of term number 3:: 5

Enter number of terms in Second Polynomial:: 5  
Degree of term number 1:: 1  
Degree of term number 2:: 2  
Degree of term number 3:: 3  
Degree of term number 4:: 4  
Degree of term number 5:: 7

Highest degree in the modulus:: 8  
Enter number of terms in the modulus:: 5  
Degree of term number 1:: 0  
Degree of term number 2:: 1  
Degree of term number 3:: 3  
Degree of term number 4:: 4  
Degree of term number 5:: 8

Polynomial 1: 00100110  
Polynomial 2: 10011110  
Modulus : 100011011

Powers	Shift-Left	X-OR
$x^0$ xor P2	----	10011110
$x^1$ xor P2	00111100	00100111
$x^2$ xor P2	01001110	01001110
$x^3$ xor P2	10011100	10011100
$x^4$ xor P2	00111000	00100011
$x^5$ xor P2	01000110	01000110

Result::  
 $x^5 + x^3 + x^2 + x^1 + x^0$   
(00101111)