EXP- 8

VAISHNAVS
[BM18CS121]

Question : Implement CRC-16 in a Programs

Ans :

Code :

```
import nasbib
  def xor(a,b):
      result=[ ]
      for i in range(1 . len(b));
          if a[i] == b[i]:
          result . append('0').
      else
          result append('1')
def mod-to-div (divided divier);
    Pick = len (dinesor)
    tmp = dividend (0; Pick]
    which = Pick < len (dividend);
      if temp[0] == '1';
temp = xor (divisor tmp ) + dividedd (Pick]
  else ;
    temp = xor('0' * Pick , temp) + divdet [Pick
      Pick = 1
  if  tmp [0] == '1';
      tmp = xor (divisor, tmP)
      else:
```

```
        tmp = xor('0' * Len, tmp)
        Checkword = tmp.
    return Checkword.

def encodeData(data, key):
        l_key = len(key)
    appended_data = data + '0' * (l_key - 1)
    remainder = mod_to_div(appended_data, key)
    Codeword = data + remainder.
    return Codeword.

def decodeData(code, key):
    remainder = mod_to_div(code, key)
    return remainder.

data = "10001000 00010001"
print("Generating Polynomial:" + key)
Codeword = encodeData(data, key)
print("CheckSum:", Codeword).
print("Transmitted Codeword: " + str(Codeword))
code("Transmitted Codeword:" + str(Codeword))
Code = input("Enter Recieved codeword:").
recvdData = int(decodeData(Code, key))
if(recvdData == 0):
        print("NO Error")
```