Welcome to my Presentation

Presentation on Digital Logic Design

Presented By:

Name : Tushar Sarkar

Student ID: 18CSE035

Second Year First Semester

Department of CSE,BSMRSTU,

Gopalganj-8100.

My Question is 2

- Design of a combinational circuit with a decoder and external gates for the following three Boolean functions:

F_1 = X'Y'Z' + YZ

F_2= X'YZ' + X'Z

F_3 = XYZ' + Z

$$F_1 = X'Y'Z' + YZ$$

$$= X'Y'Z' + YZ(X+X')$$

$$= X'Y'Z' + XYZ + X'YZ$$

$$= \sum(0,3,7)$$

$$F_2 = X'YZ' + X'Z$$

$$= X'YZ'+X'Z(Y+Y')$$

$$=X'YZ'+X'YZ+X'Y'Z$$

$$=\sum(1,2,3)$$

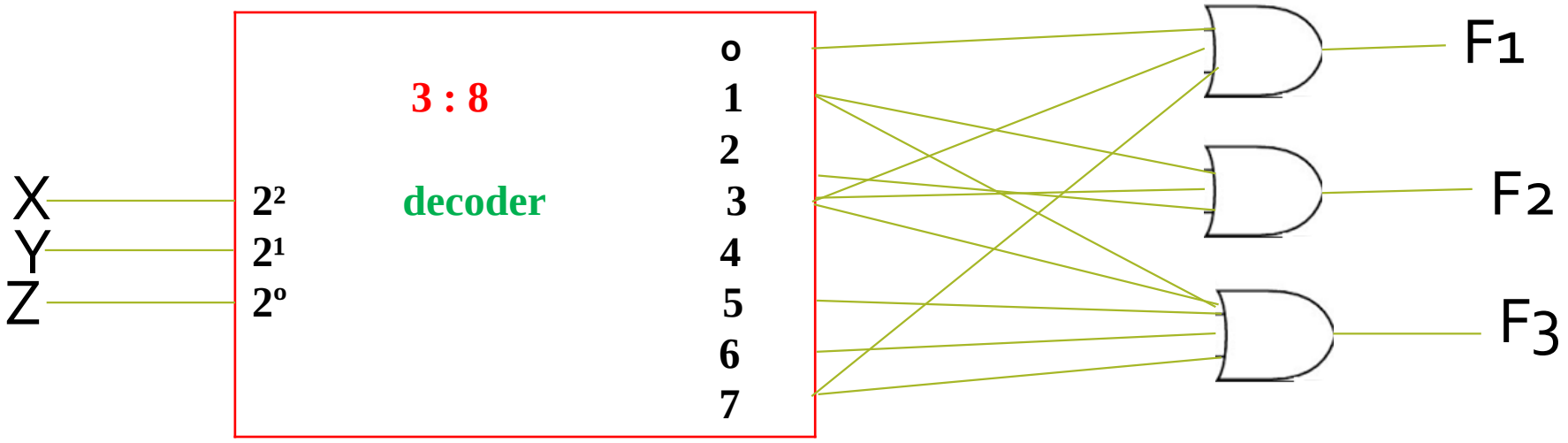
$$F_3 = XYZ' + Z$$

$$= XYZ' + Z(X+X')(Y+Y')$$

$$= XYZ' + XYZ + XY'Z + X'YZ + X'Y'Z$$

$$= \sum(1,3,5,6,7)$$

Decoder To External



Thank You