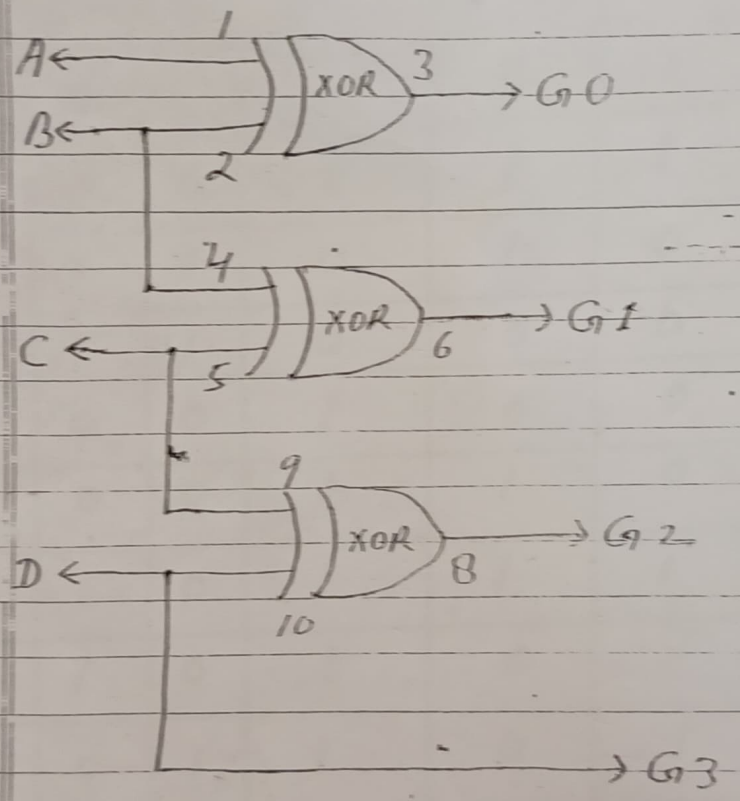
EXP. No:- 02

Computer Organization Lab.

Object:- Implementing Binary-to-Gray, Gray-to-Binary code conversions.

Used - XOR IC - 7486



Binary to Gray code

$G3 = D$	IC - 7486 (XOR)
$G2 = D \oplus C$	
$G1 = C \oplus B$	Pin No:- 07 Ground
$G0 = B \oplus A$	Pin No:- 14 +5 Volt

TABLE - EXP. 2

BINARY TO GRAY CODE CONVERTER

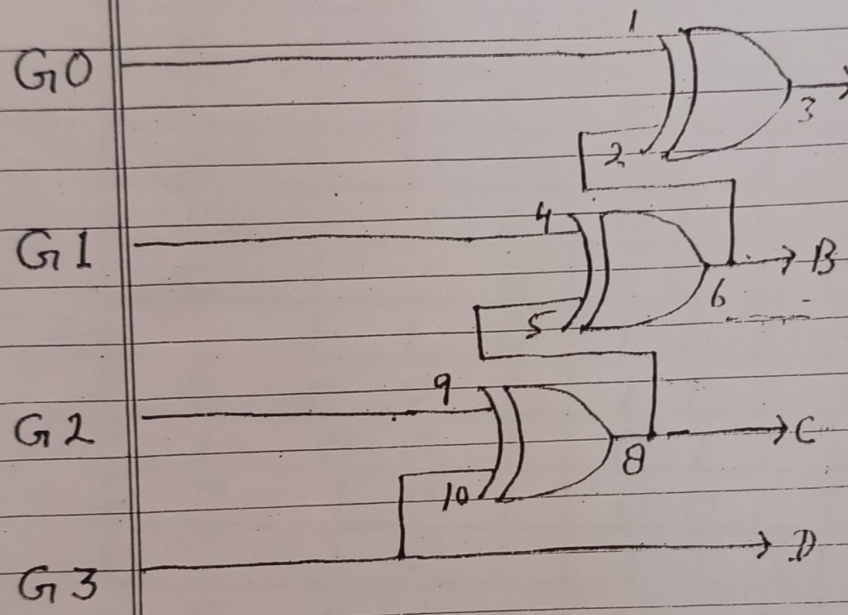
A	B	C	D	G0	G1	G2	G3
0	0	0	0	0	0	0	0
1	0	0	0	1	0	0	0
0	1	0	0	1	1	0	0
1	1	0	0	0	1	0	0
0	0	1	0	0	1	1	0
1	0	1	0	1	1	1	0
0	1	1	0	1	0	1	0
1	1	1	0	0	0	1	0
0	0	0	1	0	0	1	1
1	0	0	1	1	0	1	1
0	1	0	1	1	1	1	1
1	1	0	1	0	1	1	1
0	0	1	1	0	1	0	1
1	0	1	1	1	1	0	1
0	1	1	1	1	0	0	1
1	1	1	1	0	0	0	1

EXP. No:- 02

CO - LAB

Object:- Implementing Binary-to Gray, Gray to Binary code conversions.

Used:- XOR 7486



Gray to Binary Code

D = G3
C = D ⊕ G2
B = C ⊕ G1
A = B ⊕ G0

- XOR - IC - 7486
- PIN No:- 07 Ground
- PIN No:- 14 (+5 volt.)

EXP.-2

TABLE

GRAY TO BINARY CONVERTER

G0	G1	G2	G3	A	B	C	D
0	0	0	0	0	0	0	0
1	0	0	0	1	0	0	0
0	1	0	0	1	1	0	0
1	1	0	0	0	1	0	0
0	0	1	0	1	1	1	0
1	0	1	0	0	1	1	0
0	1	1	0	0	0	1	0
1	1	1	0	1	0	1	0
0	0	0	1	1	1	1	1
1	0	0	1	0	1	1	1
0	1	0	1	0	0	1	1
1	1	0	1	1	0	1	1
0	0	1	1	0	0	0	1
1	0	1	1	1	0	0	1
0	1	1	1	1	1	0	1
1	1	1	1	0	1	0	1