Week 9

CS232S21_recitation_9

Recitation#9: Mux Application

CS232 Spring 2021

When: March 26 at 2:00 pm

a) Given the function Z = B'C + A'BD + AB', fill in the truth-table below.

A	B	C	D	Z
0	0	0	0	
0	0	0	1	
0	0	1	0	
0	0	1	1	
0	1	0	0	
0	1	0	1	
0	1	1	0	
0	1	1	1	
1	0	0	0	
1	0	0	1	
1	0	1	0	
1	0	1	1	
1	1	0	0	
1	1	0	1	
1	1	1	0	
1	1	1	1	

b) Given the truth table of part (a), implement Z using a single 16:1 multiplexer sh

$$Z = \overline{B}C + \overline{A}BD +$$

A	B	C	D	Z	.
0	0	0	0	0	
0	0	0	1	0	
0	0	1	0	1	
0	0	1	1	1	
0	1	0	0	0	
0	1	0	1	1	
0	1	1	0	0	
0	1	1	1	1	
1	0	0	0	1	
1	0	0	1	1	
1	0	1	0	1	
1	0	1	1	1	
1	1	0	0		
1	1	0	1		

own below. Make sure to clearly label