

Digital Circuits

Laboratory 1

Minimize the following Boolean function and synthesize using:

- a) gates,
- b) a 2-bit multiplexer

abc→	000	001	011	010	110	111	101	100
def ↓								
000	1	0	0	-	-	0	0	1
001	0	1	1	0	-	-	1	1
011	0	-	-	0	0	-	1	0
010	1	0	-	1	-	1	0	1
110	-	0	0	-	1	1	0	-
111	0	0	1	-	0	-	0	0
101	1	1	-	-	0	-	-	0
100	1	0	0	1	1	0	0	1