

Name and Student ID: _____ Lab Section: _____

Date: _____

PRELAB:

Q1. Use Figure 1 and the table below to fill in the truth table on the next page.

X ₃	X ₂	X ₁	X ₀	Display
0	0	0	0	0
0	0	0	1	1
0	0	1	0	2
0	0	1	1	3
0	1	0	0	4
0	1	0	1	5
0	1	1	0	6
0	1	1	1	7

X ₃	X ₂	X ₁	X ₀	Display
1	0	0	0	8
1	0	0	1	9
1	0	1	0	A
1	0	1	1	B
1	1	0	0	C
1	1	0	1	D
1	1	1	0	E
1	1	1	1	F

Lab 5 Answer Sheet

X_3	X_2	X_1	X_0	A	B	C	D	E	F	G
0	0	0	0	0	0	0	0	0	0	1
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							

Q2. Write the verilog code for the 7-Segment Display Decoder based on the truth table from Q1. You only need to write the skeleton code (i.e., a code which shows only a rough outline and no unnecessary or repetitive details) below.

TA Initials: _____

LAB:

3.0 Lab5step0 (seven_seg_decoder)

Hardware demonstrates a good circuit. TA Initials: _____

4.0 Lab5step1

Hardware demonstrates a good circuit. TA Initials: _____