

SENG1040

Assignment #3

Date of submission: Jan 29, 2019

Question 1

a.

A₅	A₄	A₃	A₂	A₁	A₀	SIGNAL
0	0	0	0	0	0	CS_RAM
0	0	0	0	0	1	CS_RAM
0	0	0	0	1	0	CS_RAM
0	0	0	0	1	1	CS_RAM
0	0	0	1	0	0	CS_RAM
0	0	0	1	0	1	CS_RAM
0	0	0	1	1	0	CS_RAM
0	0	0	1	1	1	CS_RAM
0	0	1	0	0	0	CS_RAM
0	0	1	0	0	1	CS_RAM
0	0	1	0	1	0	CS_RAM
0	0	1	0	1	1	CS_RAM
0	0	1	1	0	0	CS_RAM
0	0	1	1	0	1	CS_RAM
0	0	1	1	1	0	CS_RAM
0	0	1	1	1	1	CS_RAM
0	1	0	0	0	0	CS_RAM
0	1	0	0	0	1	CS_RAM
0	1	0	0	1	0	CS_RAM
0	1	0	0	1	1	CS_RAM

0	1	0	1	0	0	CS_RAM
0	1	0	1	0	1	CS_RAM
0	1	0	1	1	0	CS_RAM
0	1	0	1	1	1	CS_RAM
0	1	1	0	0	0	CS_RAM
0	1	1	0	0	1	CS_RAM
0	1	1	0	1	0	CS_RAM
0	1	1	0	1	1	CS_RAM
0	1	1	1	0	0	CS_RAM
0	1	1	1	0	1	CS_RAM
0	1	1	1	1	0	CS_RAM
0	1	1	1	1	1	CS_RAM
1	0	0	0	0	0	CS_ROM
1	0	0	0	0	1	CS_ROM
1	0	0	0	1	0	CS_ROM
1	0	0	0	1	1	CS_ROM
1	0	0	1	0	0	CS_ROM
1	0	0	1	0	1	CS_ROM
1	0	0	1	1	0	CS_ROM
1	0	0	1	1	1	CS_ROM
1	0	1	0	0	0	CS_ROM
1	0	1	0	0	1	CS_ROM
1	0	1	0	1	0	CS_ROM
1	0	1	0	1	1	CS_ROM

1	0	1	1	0	0	CS_ROM
1	0	1	1	0	1	CS_ROM
1	0	1	1	1	0	CS_ROM
1	0	1	1	1	1	CS_ROM
1	1	0	0	0	0	CS_LED
1	1	0	0	0	1	--
1	1	0	0	1	0	CS_COM
1	1	0	0	1	1	CS_COM
1	1	0	1	0	0	--
1	1	0	1	0	1	--
1	1	0	1	1	0	--
1	1	0	1	1	1	--
1	1	1	0	0	0	CS_LCD
1	1	1	0	0	1	CS_LCD
1	1	1	0	1	0	CS_LCD
1	1	1	0	1	1	CS_LCD
1	1	1	1	0	0	CS_LCD
1	1	1	1	0	1	CS_LCD
1	1	1	1	1	0	CS_LCD
1	1	1	1	1	1	CS_LCD

b.

$$CS_RAM = \overline{A_5}$$

$$CS_ROM = A_5 \overline{A_4}$$

$$CS_LED = A_5 A_4 \overline{A_3} \overline{A_2} \overline{A_1} \overline{A_0}$$

$$CS_COM = A_5 A_4 \overline{A_3} \overline{A_2} A_1$$

$$CS_LCD = A_5 A_4 A_3$$

c.

