Signals & Systems Assignment 1 (Spring 2020) – 4Th Semester (CLO1)

Question 1. Given the signal x(t) shown in Figure 1, Sketch and label the following signals (2)

1) $x(t-2)$
2) $x(2-t/3)$

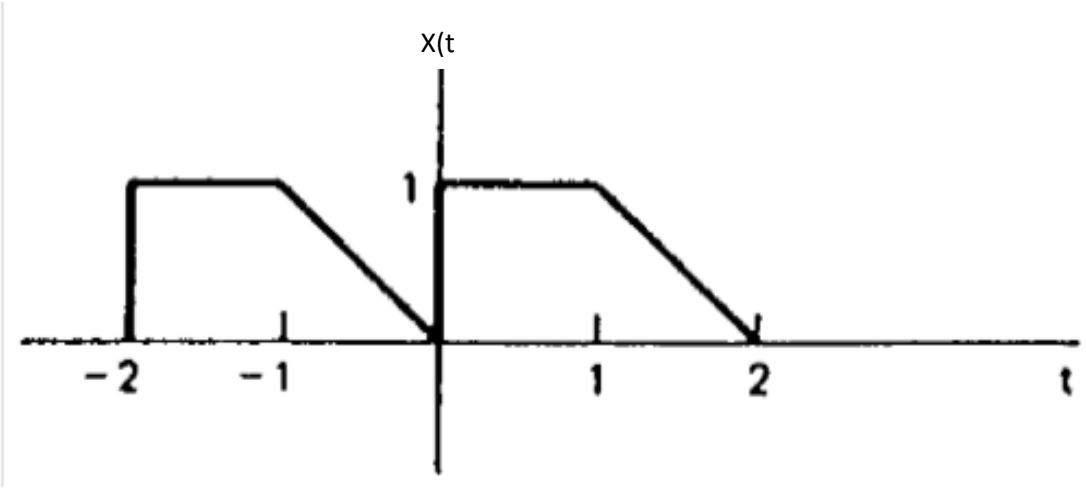

Figure 1

Question 2. Using signal x(t) in Figure 1 above and signal h(t) given in Figure 2, Sketch and label the following signals. (2)

1) $x(t-2)h(t+2)$
2) $x(t)+h(1-t)$

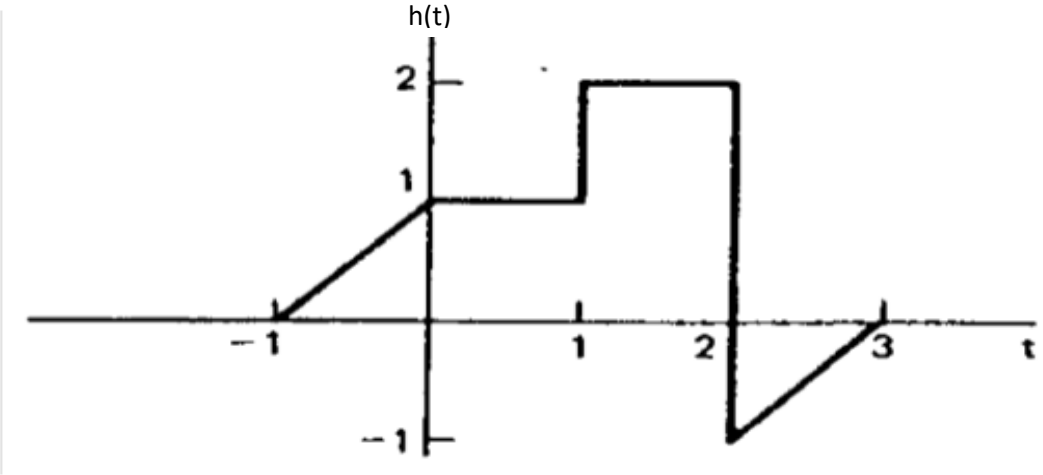

Figure 2

Question 3. Given the discrete-time signal x[n] shown in Figure 3, Sketch and label; (3)

1) $x[-2-2n]$
2) $x[n-4]\delta[n-1]$
3) $x[n^2+1]$

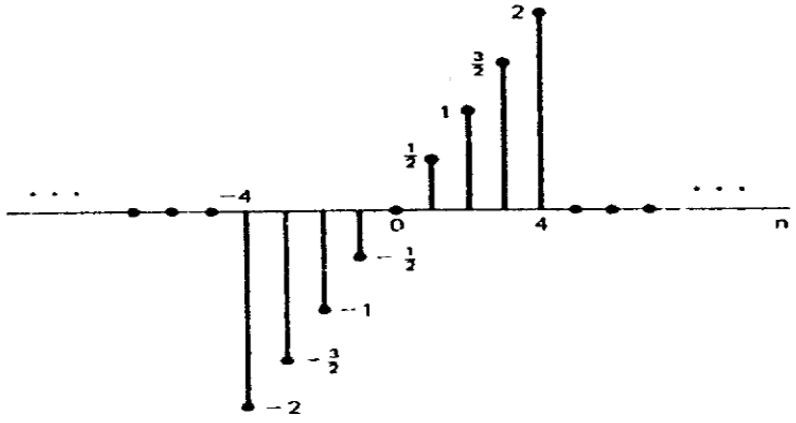

Figure 3

Question 4. Determine and sketch even and odd parts of the continuous-time signals depicted in Figure 4. Label your sketches carefully. **(1.5)**

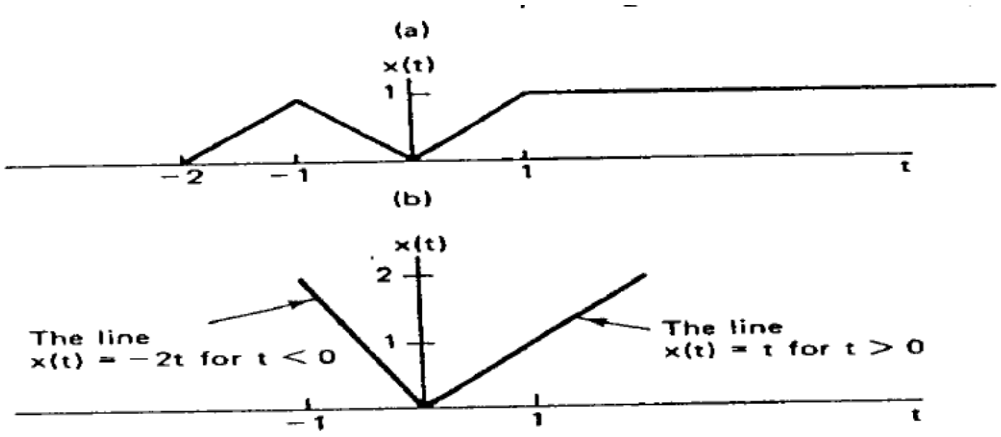

Figure 4

Question 5. Determine and sketch even and odd parts of the discrete-time signals depicted in Figure 4. Label your sketches carefully. **(1.5)**

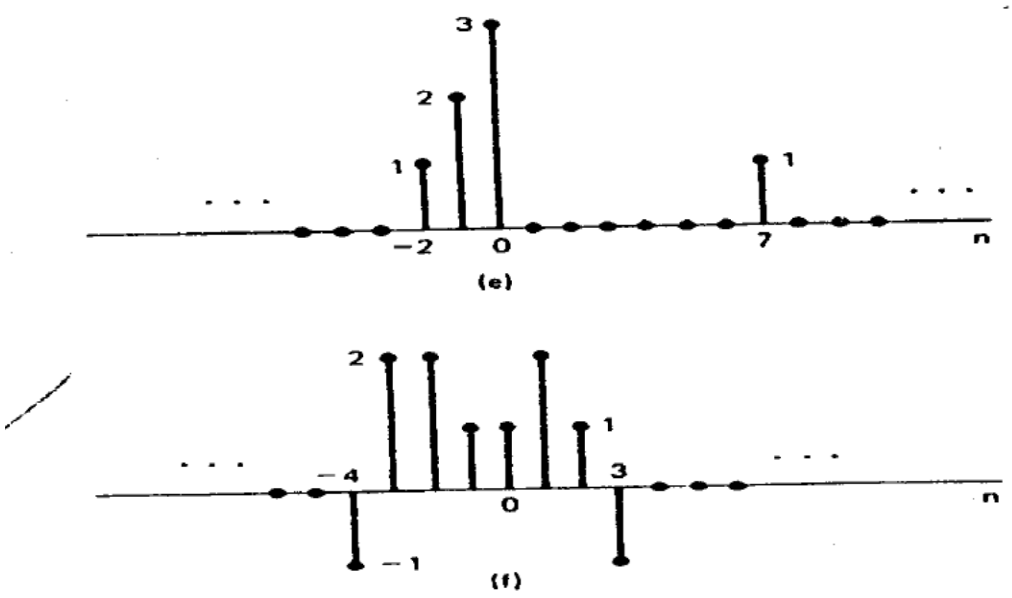

Figure 5

Due date for this assignment is Friday 19th June 2020. The quiz related to assignment 1 will be on Friday, 19th June 2020.