Name_____ CM_____

ECE-205 Quiz 6

1) For this problem, assume $h_1(t) = \delta(t-1),\ h_2(t) = \delta(t+2)$

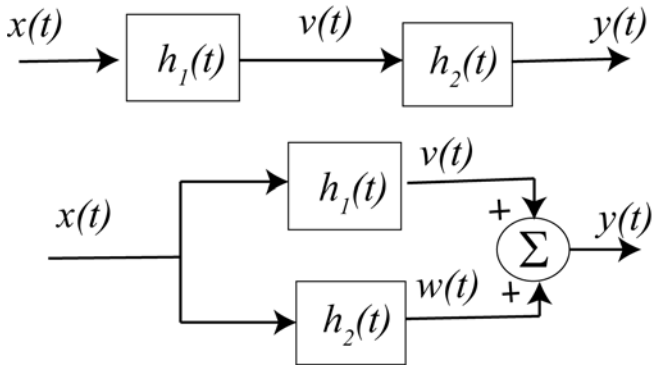
a) Is the system with impulse response $h_1(t)$ causal? a) Yes b)No

b) Is the system with impulse response $h_1(t)$ BIBO stable? a)Yes b)No

c) Is the system with impulse response $h_2(t)$ causal? a) Yes b)No

d) Is the system with impulse response $h_2(t)$ BIBO stable? a)Yes b)No

For the following four questions, assume we have a **series** connection (top) and a **parallel** connection (bottom)



e) Determine the overall impulse response (the impulse response between input *x(t)* and output *y(t)*) for the **series** connection

f) Is the **series** system causal? a) Yes b)No

g) Determine the overall impulse response (the impulse response between input *x(t)* and output *y(t)*) for the **parallel** connection

h) Is the **parallel** system causal? a) Yes b) No

2) An LTI system has input, impulse response, and output as shown below. Determine numerical values for the parameters *a-l*. Note that parameters *a-g* correspond to *times*, and *h-l* correspond to *amplitudes.*

Note that the output graph is only an approximate sketch of the output. Do not try to read values from this sketch.