

LAHORE UNIVERSITY OF MANAGEMENT SCIENCES
Department of Electrical Engineering

EE310 Signals and Systems
Quiz 03

Name: _____

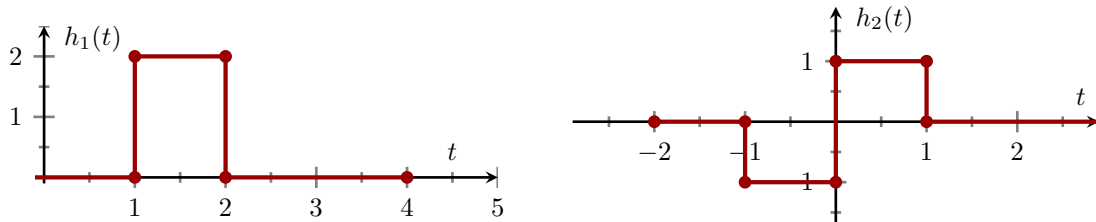
Campus ID: _____

Total Marks: 10

Time Duration: 15 minutes

Question 1 (7 marks)

Consider the two CT LTI systems connected in series with impulse response $h_1(t)$ and $h_2(t)$ given below:



- (a) [7 marks] Determine the overall impulse response $h(t)$ of the system, that is, compute $h(t) = h_1(t) * h_2(t)$.
- (b) [1 mark] Is overall system with impulse response $h(t)$ causal? Justify your answer.

Question 2 (2 marks)

Determine whether a discrete-time LTI system with impulse response given by

$$h[n] = 2^n u[4 - n],$$

is stable and causal.