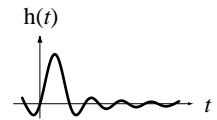


Solution of ECE 315 Test 12 F04

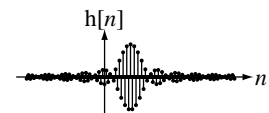
Below are some descriptions of filters in the forms of impulse responses, frequency-response magnitudes and circuit diagrams. For each of these, classify the filters as CT or DT, ideal (I) or practical (P), causal (C) or non-causal (NC) lowpass (LP), highpass (HP), bandpass (BP) or bandstop (BS). If a filter is impossible to classify in a certain category from the description just leave it blank.

CT or DT I or P C or NC LP, HP, BP or BS

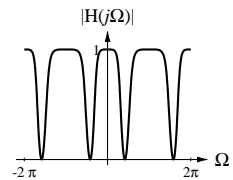
CT I NC LP



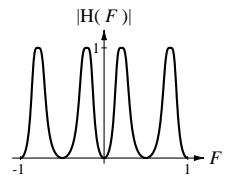
DT I NC BP



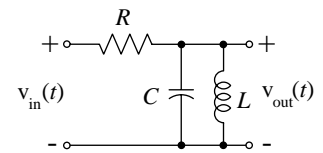
DT P _____ BS
(Cannot determine causality without a phase plot.)



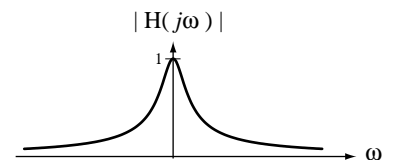
DT P _____ BP
(Cannot determine causality without a phase plot.)



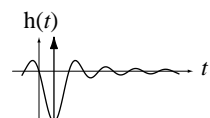
CT P C BP
(All real physical systems are practical and causal.)



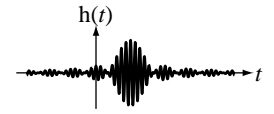
CT P _____ LP
(Cannot determine causality without a phase plot.)



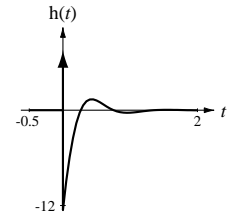
CT I NC HP



CT I NC BP

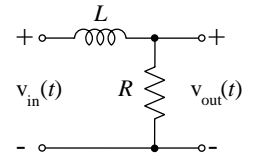


CT P C HP



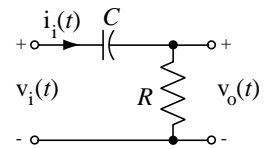
CT P C LP

(All real physical systems are practical and causal.)



CT P C HP

(All real physical systems are practical and causal.)



DT I NC HP

(All ideal filters are non-causal.)

