Signals And Systems

Pre Lab 3 Report

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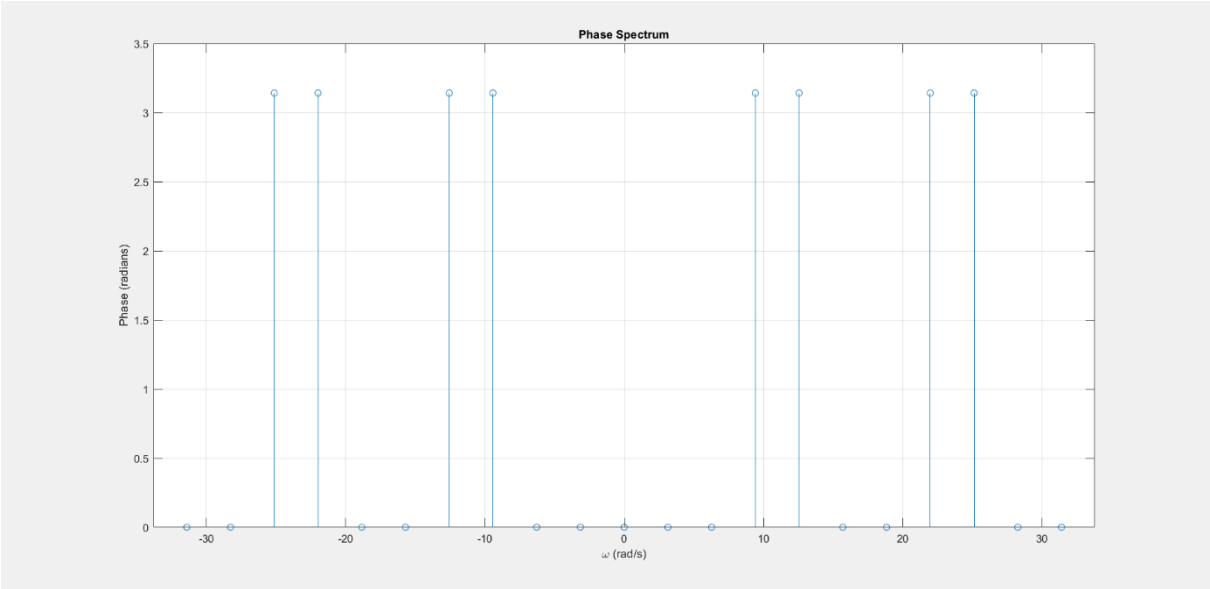
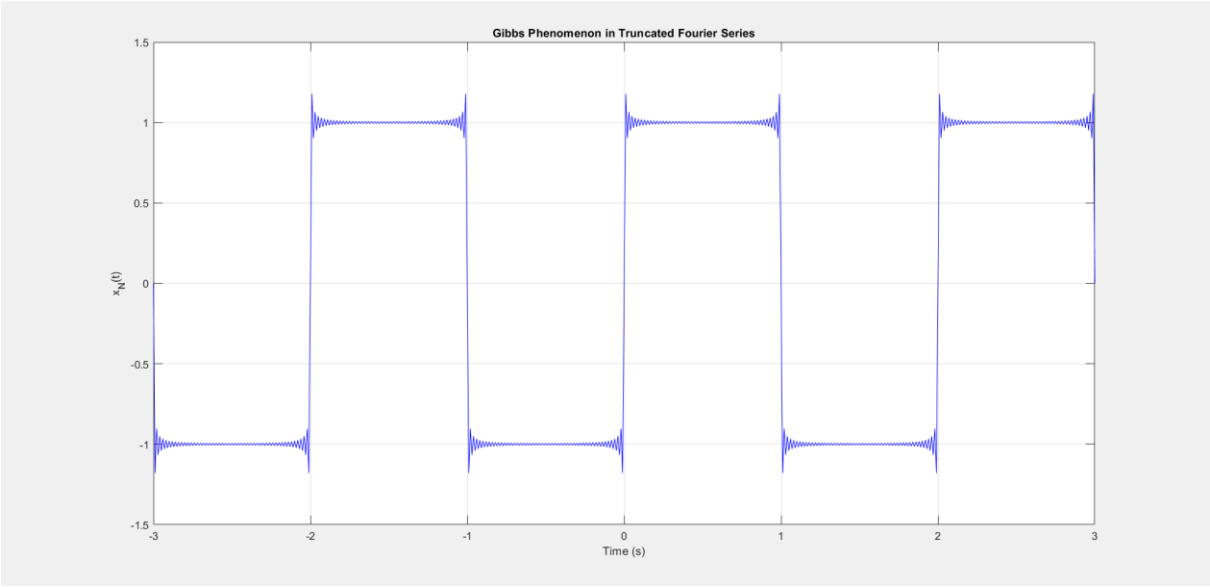
1) Use Matlab to perform symbolic Fourier series calculation of the following signal. Plot both the amplitude and phase of the harmonics.

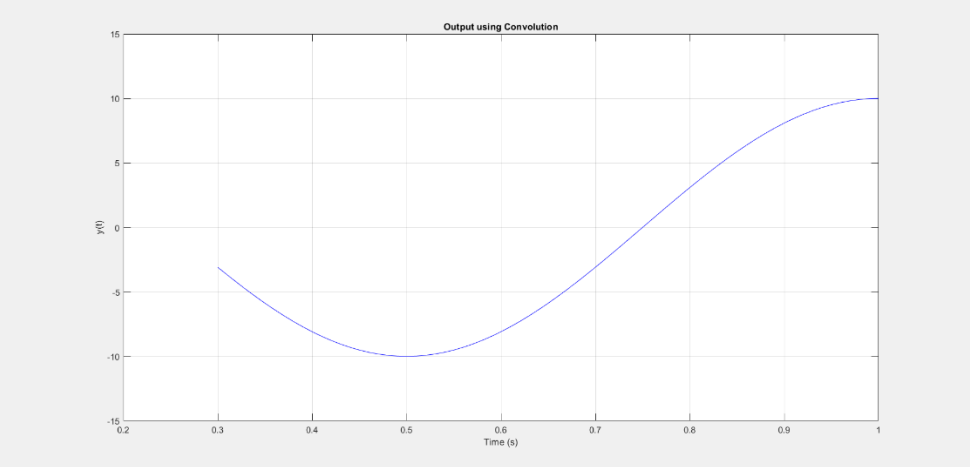


2) Let {cn } be the Fourier series coefficients of x(t) . Define x" (t) = … as a truncated version of the original signal.

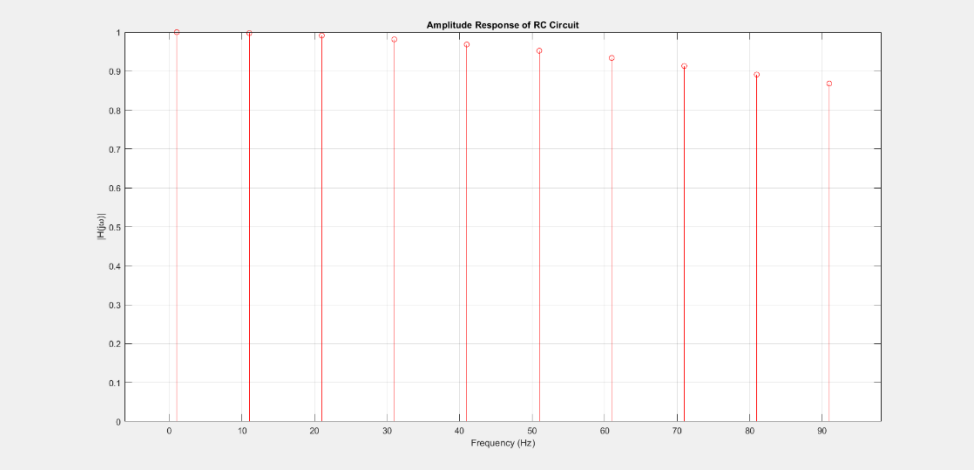


3) For LTI systems with periodic inputs, the output can be calculated in two ways: convolution, or transfer function. We will perform both operations in this part of the lab, and compare their results. Input: x(t) = cos(2pf0t)

A)



B)



C)