Department Of electrical and computer Engineering

ENEE2103 CIRCUITS AND ELECTRONICS LABORATORY

Experiment No.5 Prelab

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Made By: Islam Jihad

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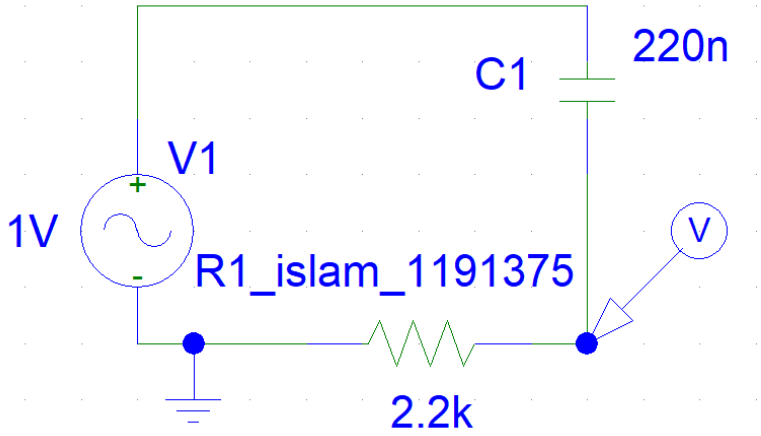
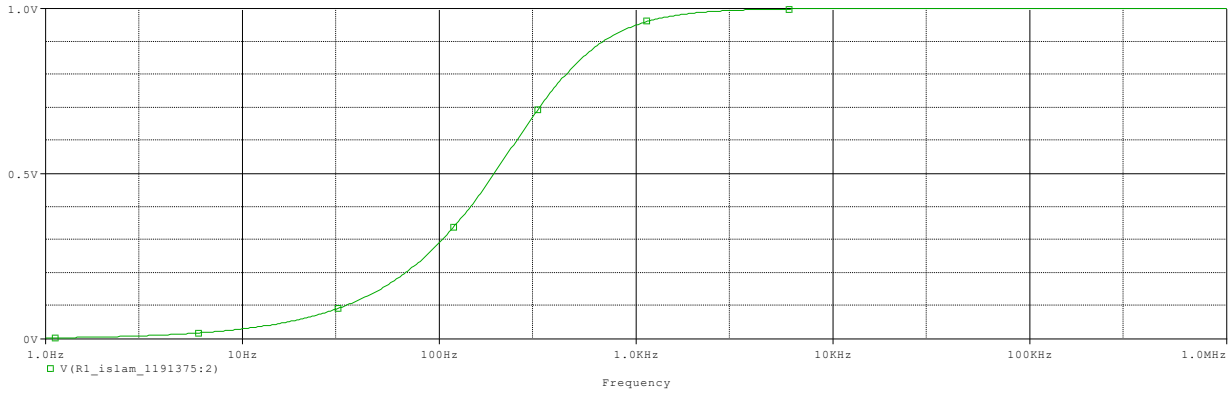
Date: 4/12/2021

A. ***Passive filters:***

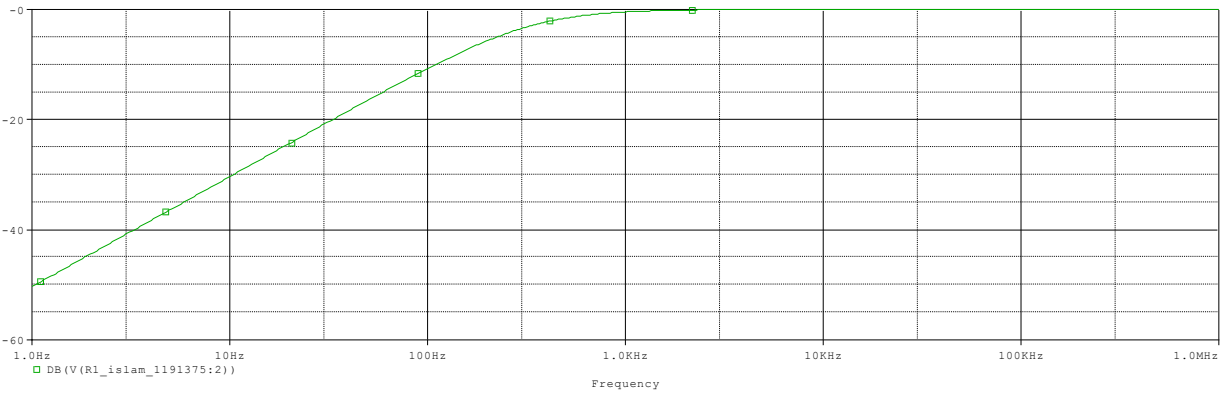
I. First order circuits:



3.



4.



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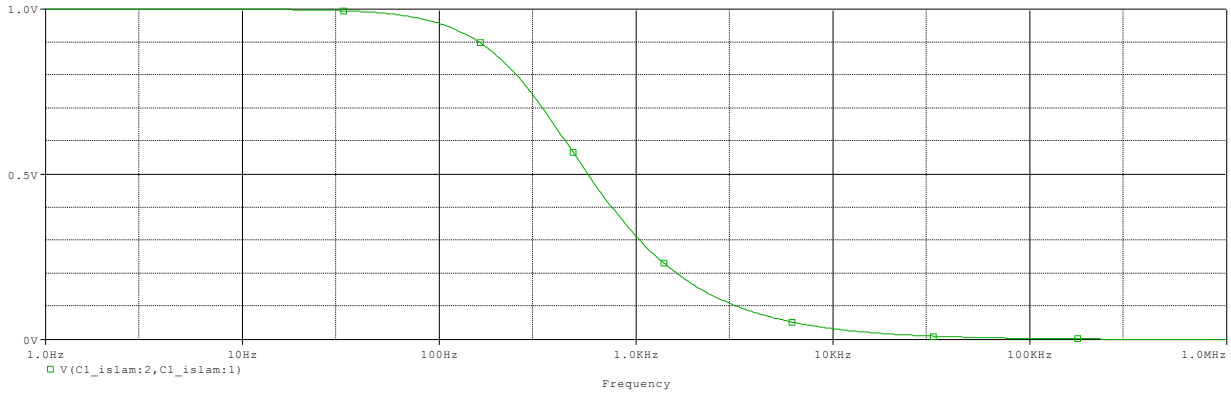
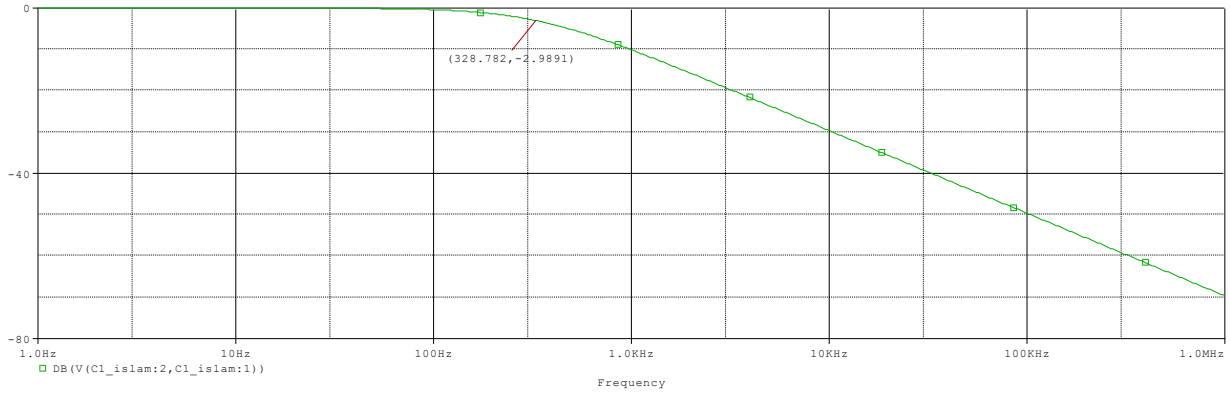


In decibels



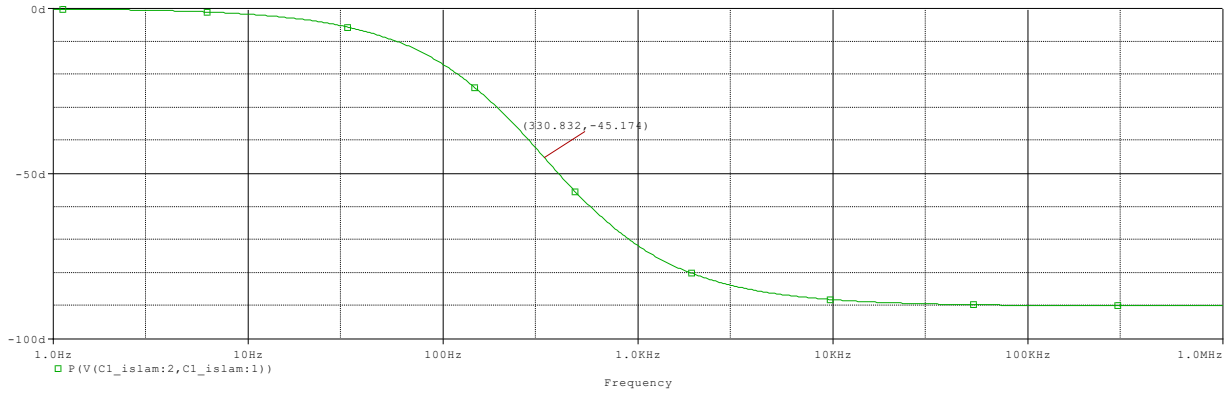
Fc=1/2piRC

=1/2*pi*2.2k*220n

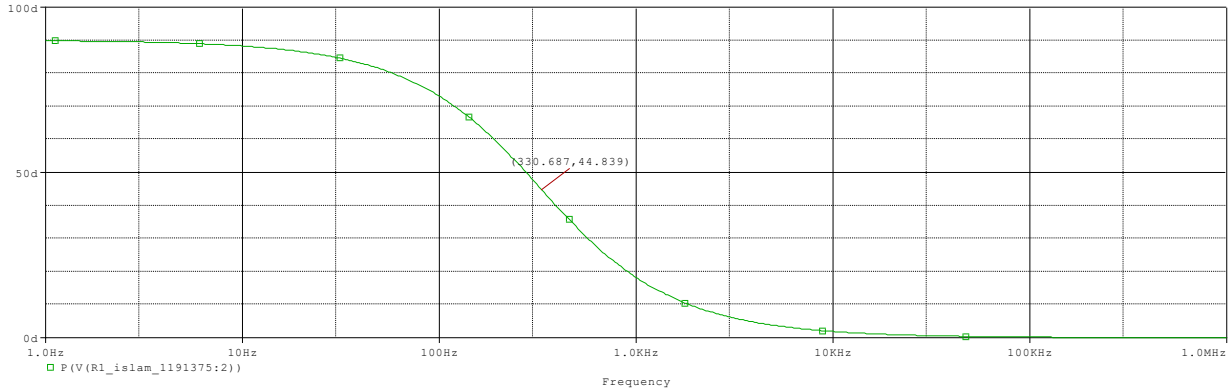
=328.8

6.

P(Vc):

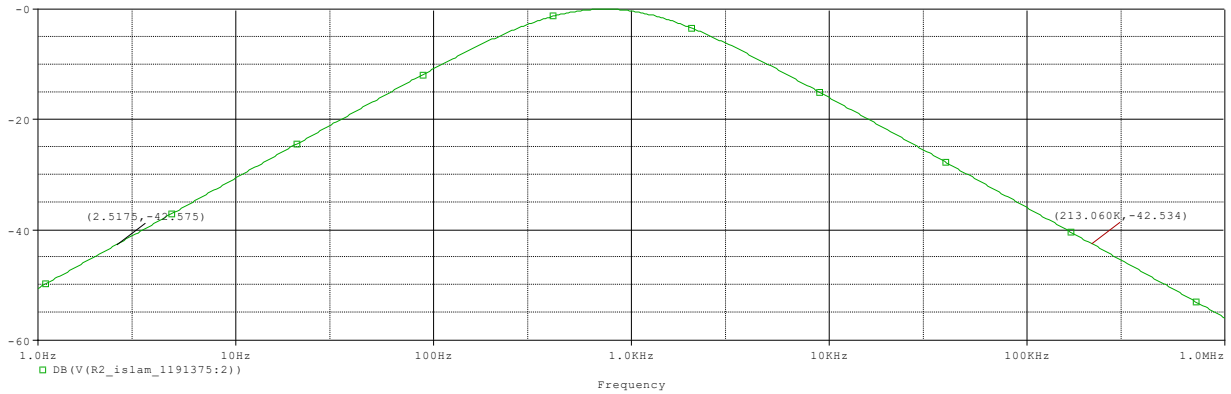


P(Vr):

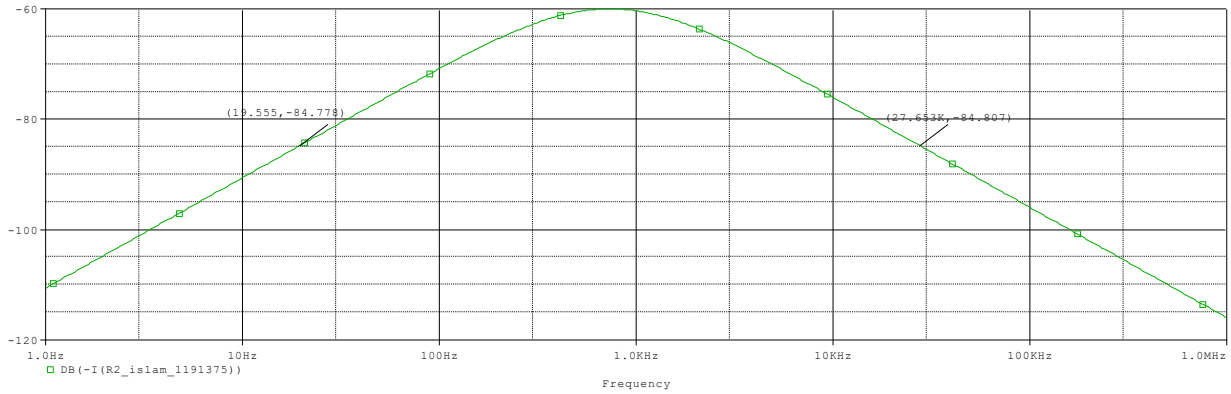


II. Second Order Fiters:

Vr db amp

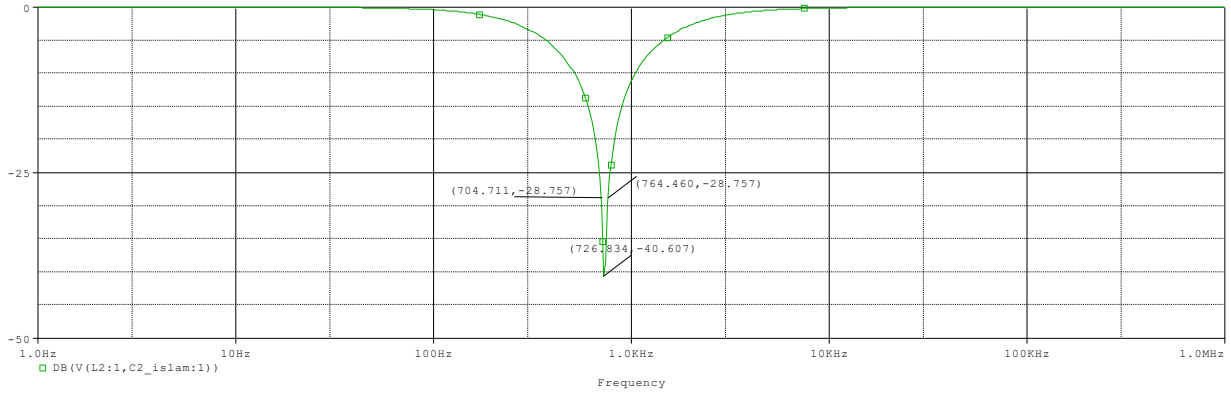


Vr db Phase

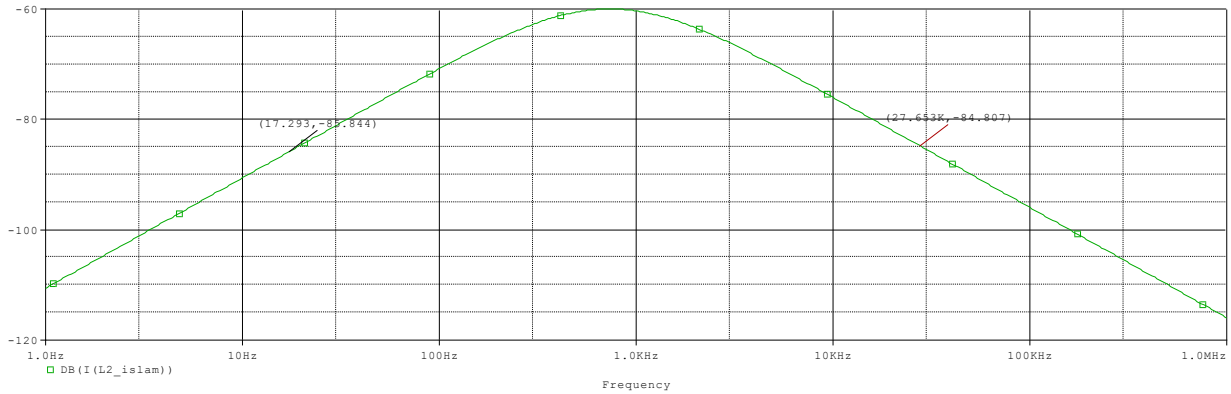


Band Pass Filter

magnitude of $(Vc+V_L)$ in decibels

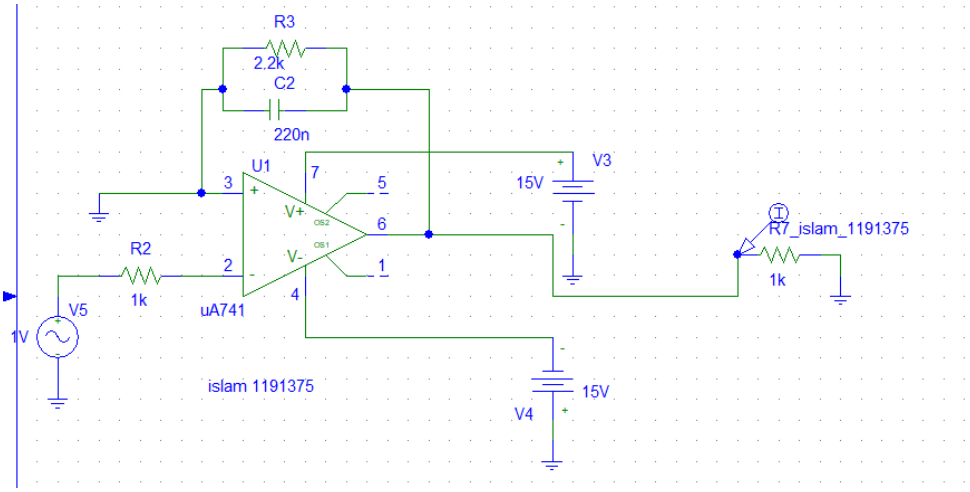


phase of $(Vc+V_L)$ in decibels

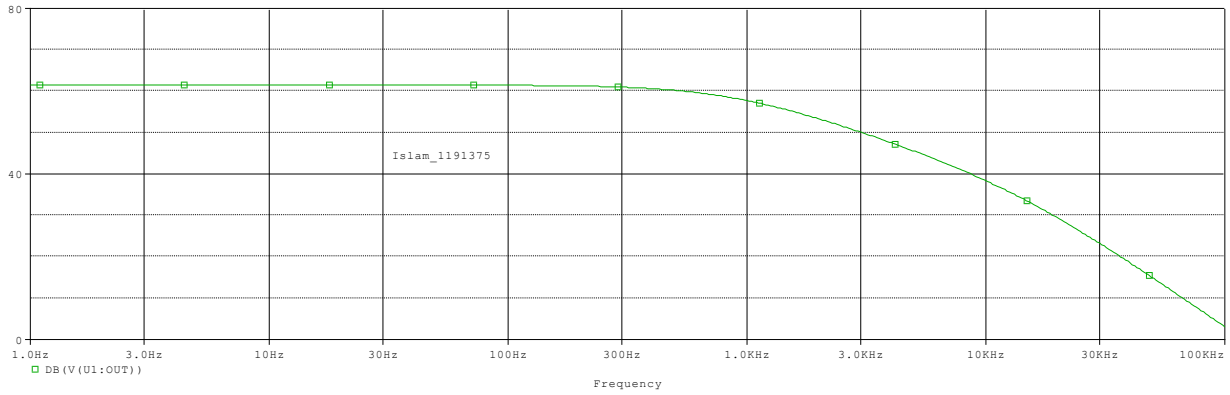


Band Reject Filter

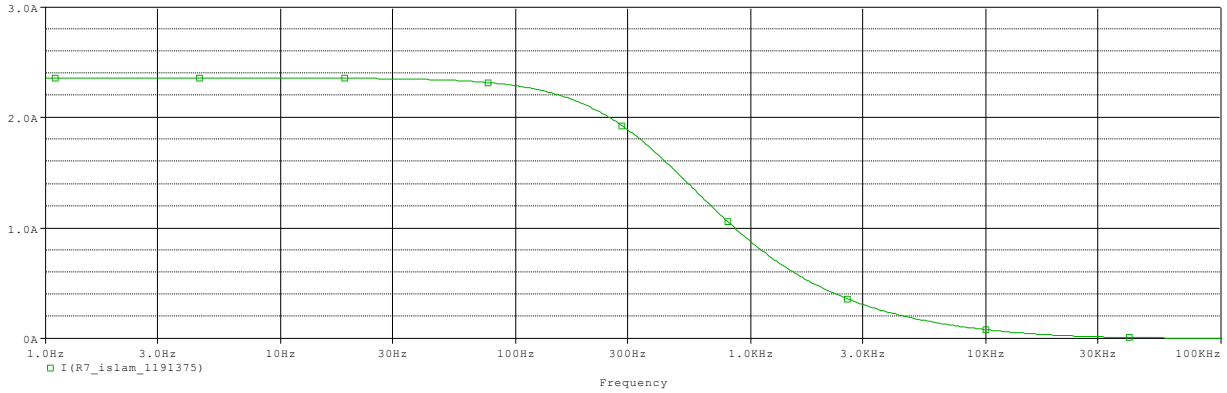
B. Active filters:



Vout amp



Vo phase



6. The filter type is: low pass filter

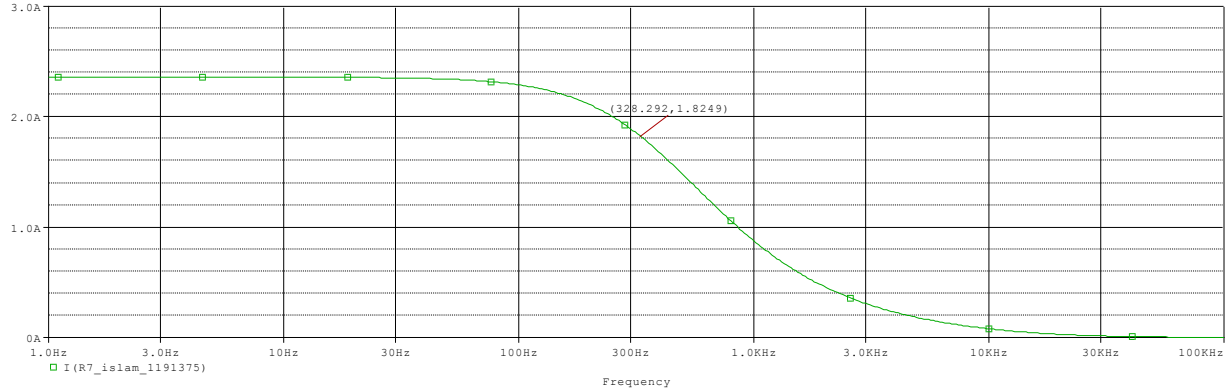
7. theoretically➔

Fc=1/2piRC

=1/2*pi*2.2k*220n

=328.8

Form the graph:



Almost the same