TWO STAGE RC COUPLED AMPLIFIER

[1].S.Sowmiya [2].S.Manjupriya

1,2 - UG Scholars

4. Dr. K.N.Vijeyakumar - Mentor

Associate professor

Department of Electronics and Communication Engineering

Dr.Mahalingam College of Engineering and Technology

AIM:

To obtain and analyze the characteristics of two stage RC coupled amplifier.

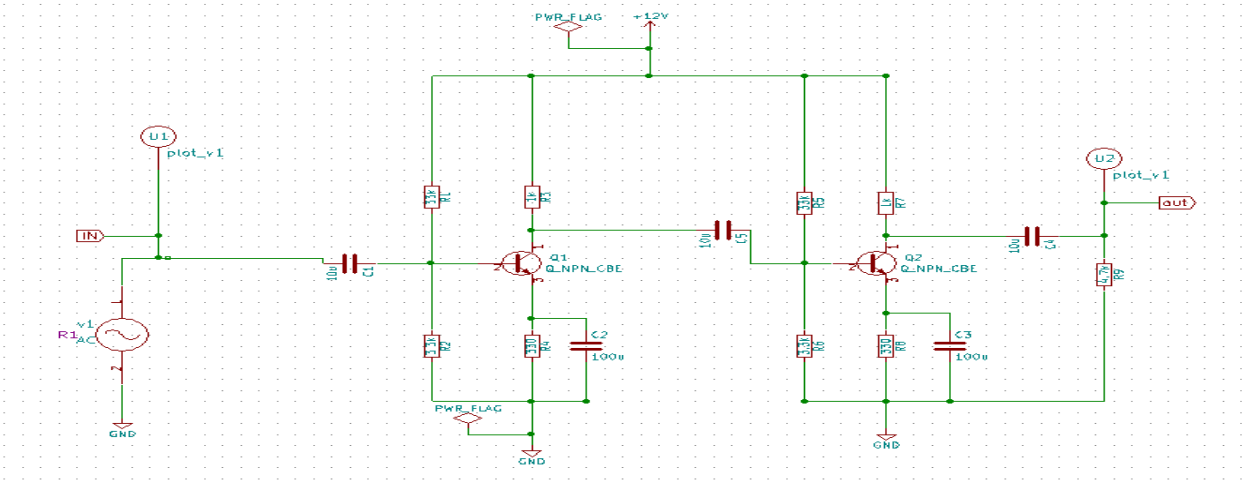
THEORY:

Practically the gain of a single stage amplifier is not sufficient for a particular application. The gain of an amplifier is increased by connecting the amplifiers in cascaded manner. The output of one stage is connected to the input of next stage through the coupling capacitor.It increases the overall gain of the amplifier and decreases the overall bandwidth of the amplifier.

The two resistors R1 andR2 are identical. The overall output is 360 phase shift. Hence output signal is in-phase with the input signal.

RTL SCHEMATIC:

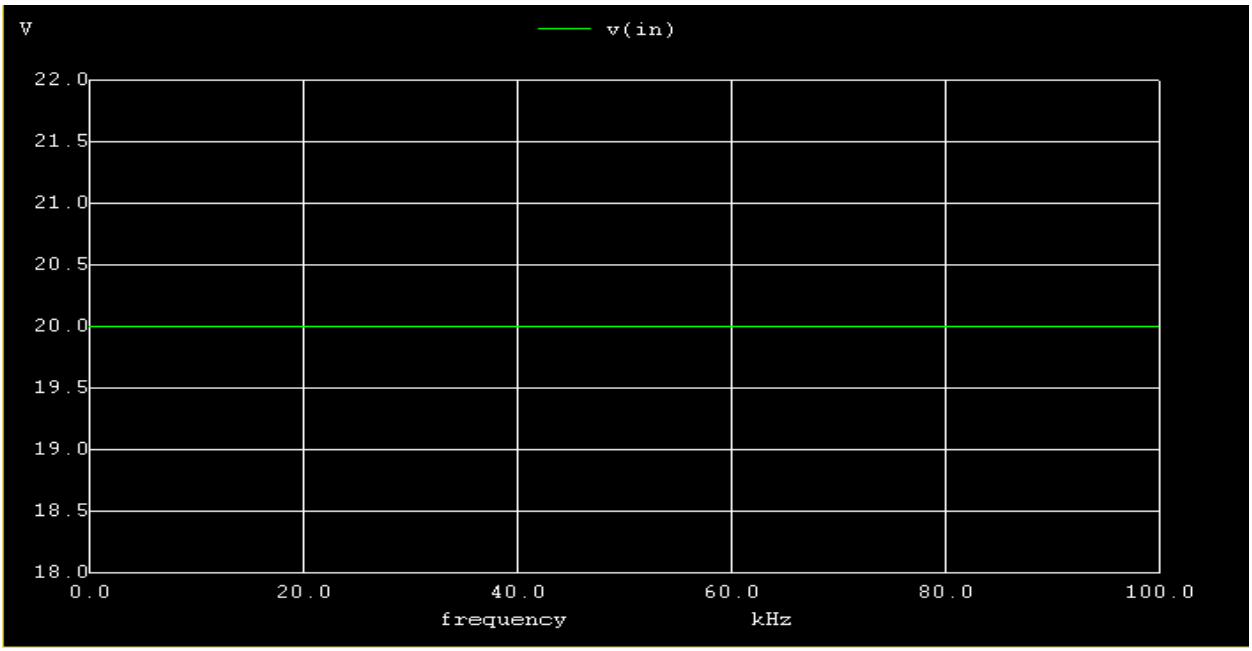
The RTL Schematic of two stage RC coupled amplifier is shown below,



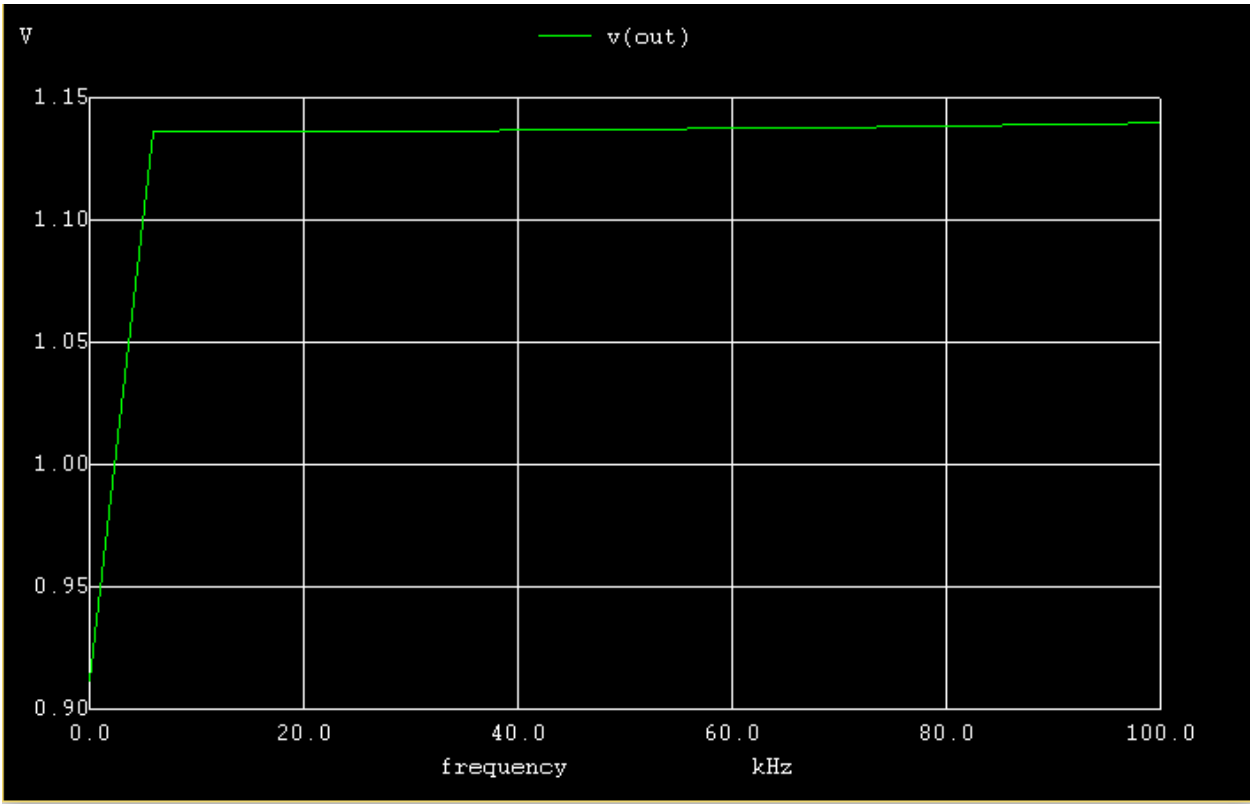
PLOTS:

NGSPICE PLOT:

INPUT:

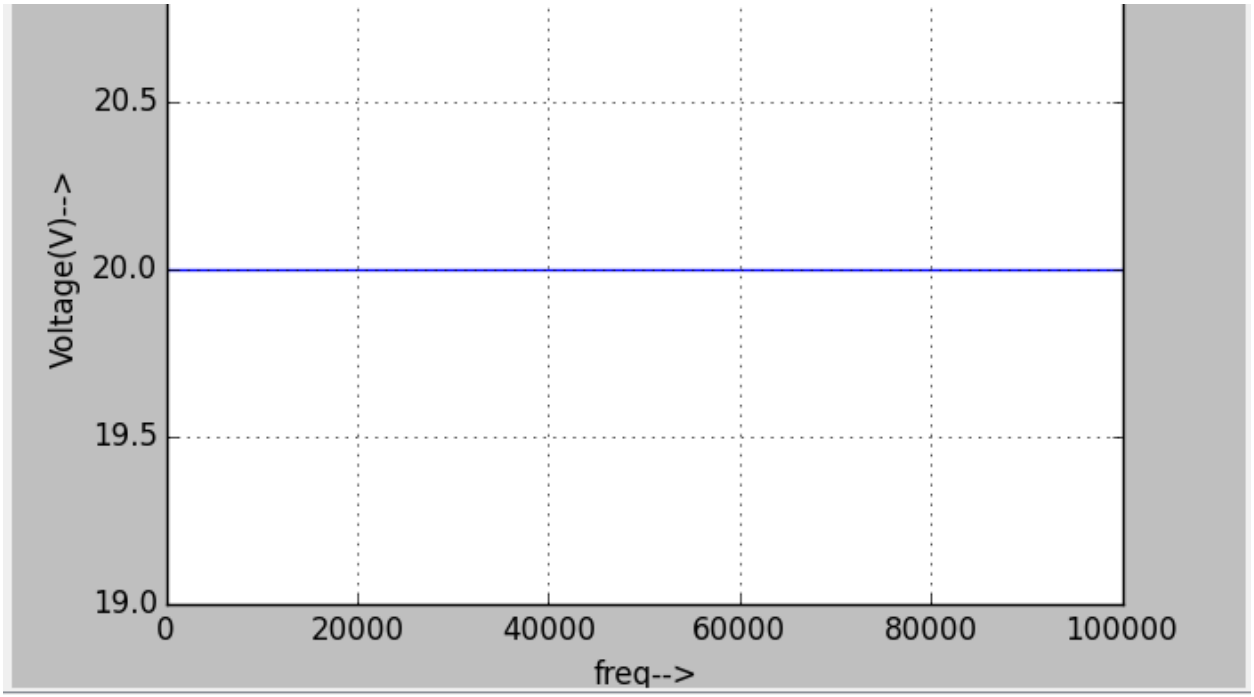


OUTPUT:

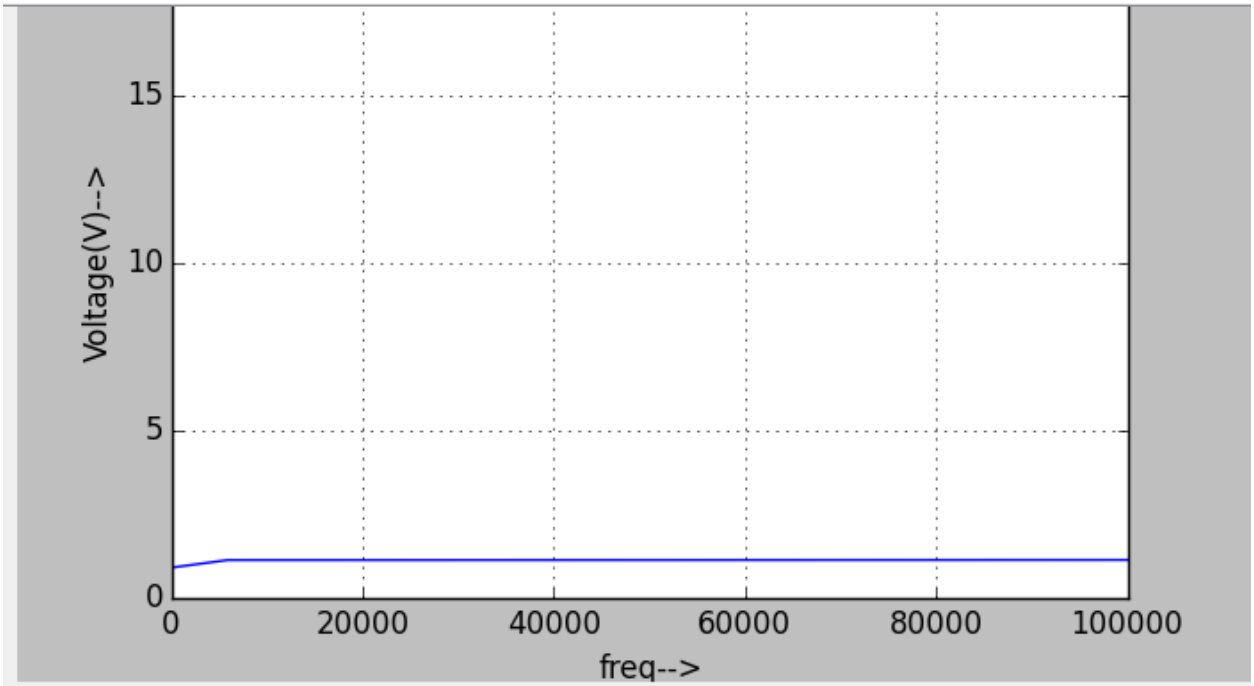


PYTHON PLOT:

INPUT:



OUTPUT:



WEB REFERENCE:

1. https://electronicspost.com/explain-working-of-rc-coupled-amplifier/