The Hong Kong University of Science and Technology
Department of Electronic and Computer Engineering

ELEC2400 **ELECTRONIC CIRCUITS** FALL 2021-22

Lab Section No. : _____ Date : _____
Name : _____ Student Number : _____

LAB 5b – Audio Equalizer

Q1. Find the center frequency of the high frequency band-pass filter. _____

Q2. Find the gain of the high frequency band-pass filter at the center frequency. _____

Q3. Find the gain of the high frequency band-pass filter at one decade **below** the center frequency.

_____

Q4. Find the gain of the middle frequency band-pass filter at the center frequency. _____

Q5. Find the gain of the middle frequency band-pass filter at one decade **below** the center frequency.

_____

Q6. Find the gain of the low frequency band-pass filter at the center frequency. _____

Q7. Find the gain of the low frequency band-pass filter at one decade **above** the center frequency.

_____

Q8. Ask the TA to check/test your equalizer. (TA's name) _____

Q9. Measure the magnitude of different frequency, and calculate the gain.

Freq(Hz)	80	100	200	500	800	1k
Vout (V)						
Gain (Vout/Vin)						

Freq(Hz)	2k	5k	8k	10k	20k	50k	80k
Vout (V)							
Gain (Vout/Vin)							

Q10. Plot the frequency response of the equalizer in the semi-log graph.
(x-axis (freq) in logarithmic scale, y-axis (gain)in linear scale.)
You could use drawing tools in Microsoft Word to complete the plot, or you could use other software to plot the curve, like Excel, and insert the drawing below.)