

Submitting Candidate

Name:

Student ID:

Lab Section:

Total for Report Sheet: _____ / 16 marks

Remarks:

1. This Report Sheet accompanies the Lab Sheet for Lab 3. It accounts for about 1/2 of the total mark of Lab 3.
2. This Report Sheet should be submitted after all compulsory sections of Lab 3 have been completed. It should be submitted on Canvas by **5 November, 2023**.
3. The marks earned in the Lab Sheet combined with the marks earned in this Report Sheet will form the total mark for Lab 3.

Section 1 (8 marks)**Section score:** _____**Observations:**

1. Plot your results of $|V_o/V_i|$ vs. f/f_c using a **log-log scale** (e.g. using Excel worksheet).

(3 marks)

V_o/V_i vs. f/f_c	

Analysis:

2. Determine the type of the filter shown in the circuit of Fig. 1.

(1 mark)

3. Was the V_o (at cutoff frequency) obtained from your experimental data similar to the analytical value of V_o derived from lecture notes? Show your results.

(4 marks)

Section 2 (8 marks)**Section score:** _____**Observations:**

1. Plot your results of $|V_o/V_i|$ vs. f/f_c using a **semi-log scale** (e.g. using Excel worksheet). **(3 marks)**

V_o/V_i vs. f/f_c	

Analysis:

2. Determine the type of the filter shown in the circuit of Fig. 2. **(1 marks)**

3. What is the maximum value of V_o in your experimental result? Which frequency (i.e. technical name) of the circuit is the frequency at which the amplitude of V_o is the maximum? Was it similar to the analytical result? Explain your answer. **(4 marks)**