



# **EASTERN MEDITERRANEAN UNIVERSITY**

**DEPARTMENT OF ELECTRICAL AND ELECTRONIC  
ENGINEERING**

## **EENG342 ELECTRONICS II**

**Fall 2019**

### **EXPERIMENT 5**

#### **SUMMING AMPLIFIER**

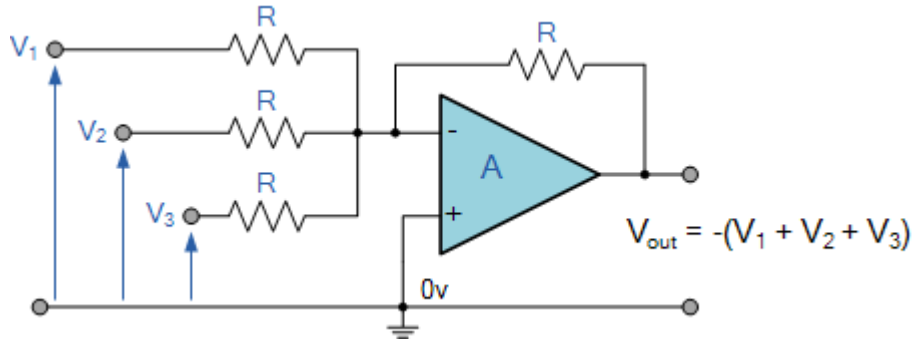
<b>Name</b>	<b>Std. No.</b>

**Group No. :** .....

**Date:** .....

**Object: An understanding of the behavior of the summing amplifier.**

**Step 1:** Construct the circuits shown below.



**Oscilloscope Settings:**

- CH 1 ( $V_i$ ) : 1 VOLTS/DIV AC Coupling
- CH 2 ( $V_o$ ) : 1 VOLTS/DIV AC Coupling
- TIME : 0.5 m SEC/DIV
- 0- REFERENCE : middle horizontal line

**Step 2:** Apply 2  $V_{p-p}$  sine wave (1 KHz) as an input signal 1.  
Apply 3  $V_{p-p}$  sine wave (1 KHz) as an input signal 2  
Apply 2  $V_{p-p}$  sine wave (1 KHz) as an input signal 3

**Step 3:** Using the given oscilloscope settings sketch and label  $V_{i1,2,3}$  and  $V_o$  to the provided graph paper.

$R_f = R_{in} = 1.2 \text{ K}\Omega$

**QUESTIONS:**

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**Q1)** derive the transfer function of the summing amplifier shown in the figure of step 1

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## Inverting Summing amplifier

