AIM OF THE EXPERIMENT:- 7

To study the op-amp as an inverting amplifier and non-inverting amplifier

EQUIPMENTS REQUIRED:-

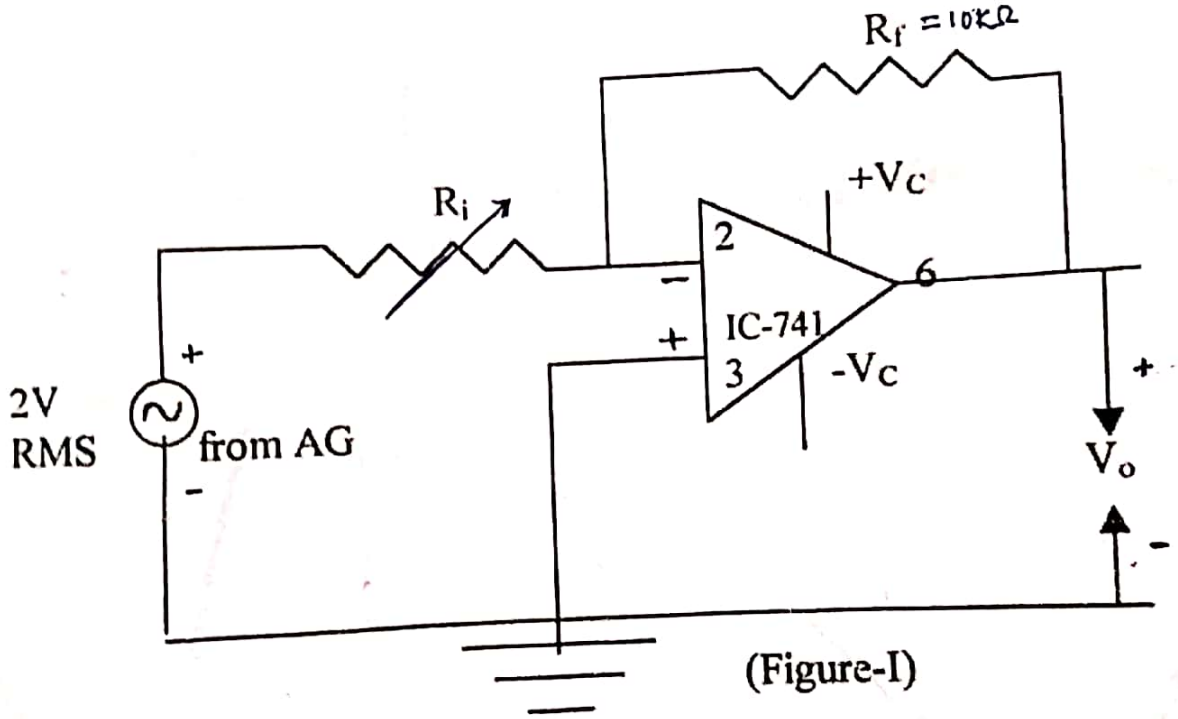
1. Op-AMP trainer kit
2. Audio frequency generator 1no
3. Decade resistance box 1nos
4. CRO DSO 1no
5. Digital multimeter 1no

PROCEDURE:-

Apply sine wave 2V RMS from Audio signal generator at 1KHz frequency. Measure the output at different R_i.

CIRCUIT DIAGRAM

Inverting amplifier:



(Figure-I)

V_{out} = $-(R_f/R_i)\, V_{in}$ for output AC 2V

(R_i=10 KΩ, 5 KΩ and 2.5KΩ)

TABLE-1

R_i	R_f	V_{in}	V_{out}	Experimental gain =Vo/Vi	Theoretical gain	Ø

Non – Inverting amplifier:

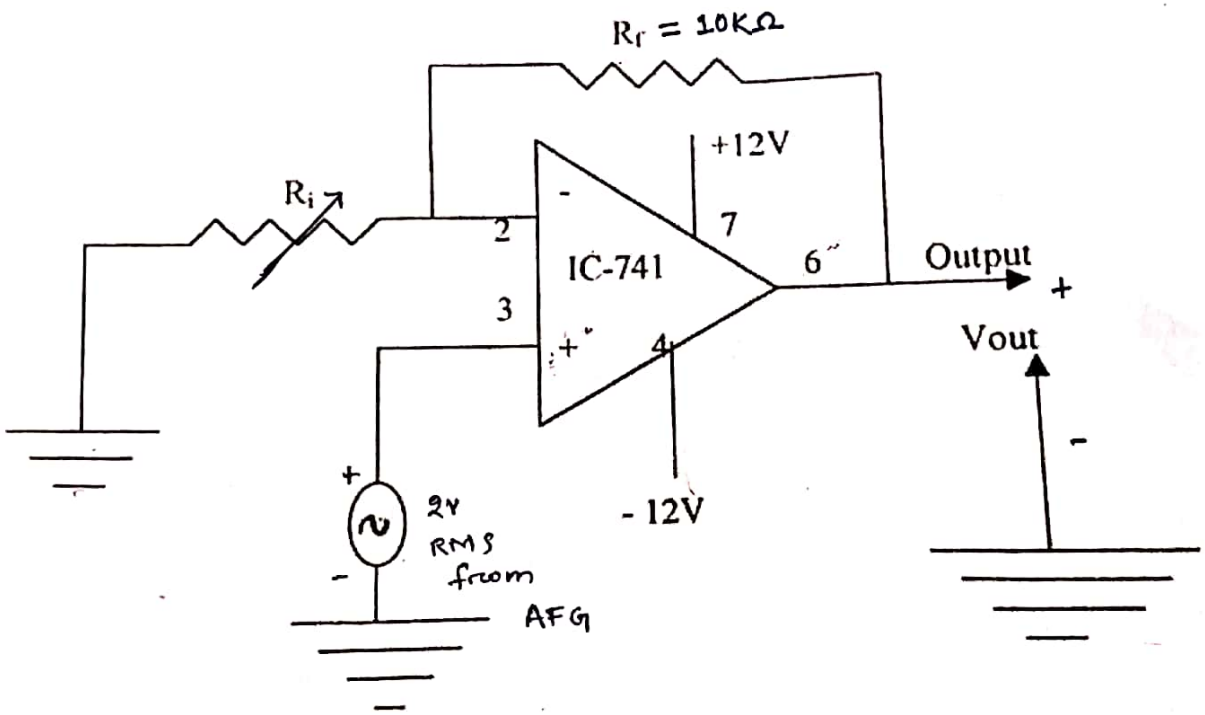


TABLE-II

R_i	R_f	V_{in} in volt	V_{out} in volt	Experimental gain = Vo/Vi	Theoretical gain	∅

$$V_0 = (1 + R_f/R_i)\, V_{in}$$

Compare the experimental result with theoretical value and discuss

* WRITE THEORY (FROM BOOK) BEFORE PROCEDURE
* WRITE CONCLUSION (AT LAST).