Exp. No. : Date :

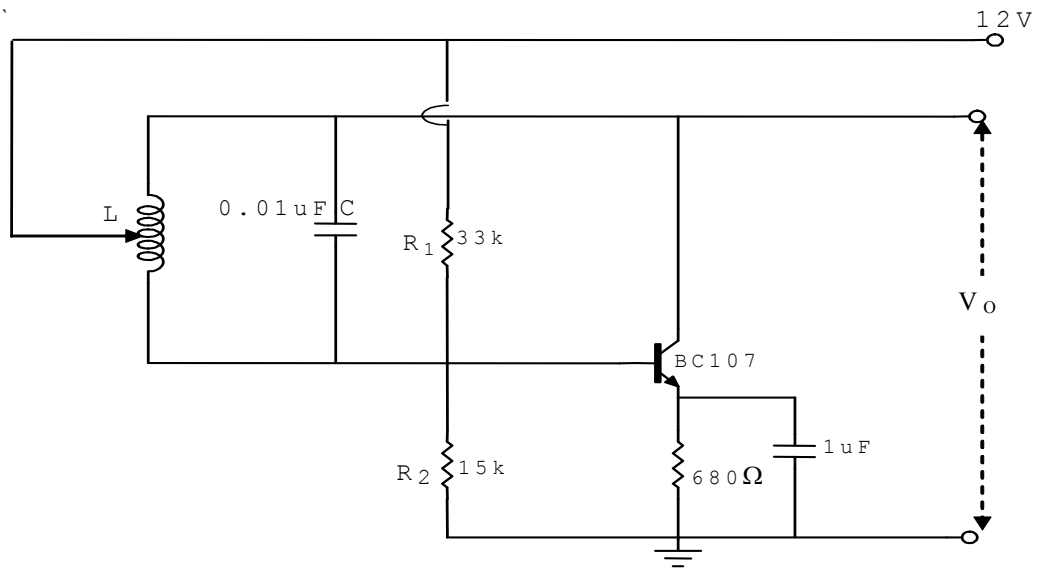
HARTLEY OSCILLATOR

AIM: To obtain the frequency of the Hartley oscillator.

APPARATUS :

S.No.	Name of the Apparatus	Range	Quantity
1.	SL100	-	1No.
2.	Power Supply	0-30V	1No.
3.	Resistors (Ω)	33K, 15K & 680	Each 1No.
4.	Capacitor	0.01μF & 1 μF	Each 1No.
5.	Inductor	50μH	1No.
6.	CRO	-	1No.

CIRCUIT DIAGRAM:



PROCEDURE:

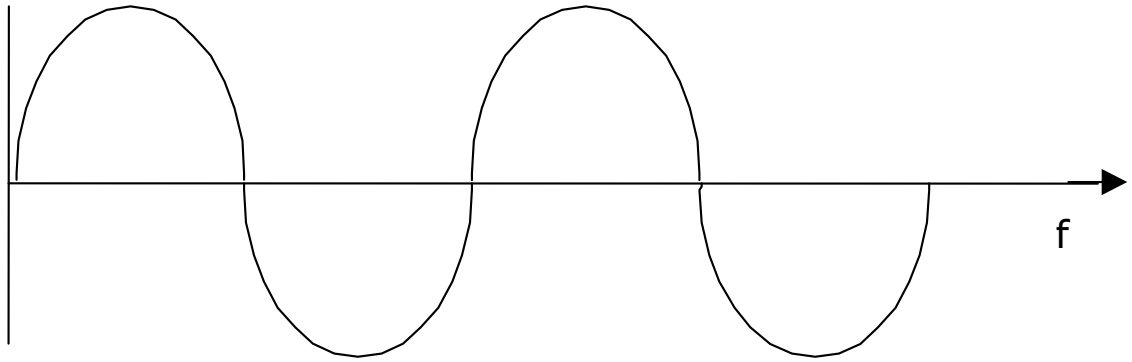
1. Connect the circuit as shown in figure.

2. Set V_{CC}=12V.

3. Measure the frequency from CRO

Exp. No. : Date :

Model Waveform:



Calculations:

Theoretical frequency $f_0 = \frac{1}{2\,\Pi\,\sqrt{C\,L_{eq}}} =$

where $L=L_1+L_2 = 50\mu H$

Results:

Theoretical frequency =

Practical frequency =