EXPERIMENT NO. 1

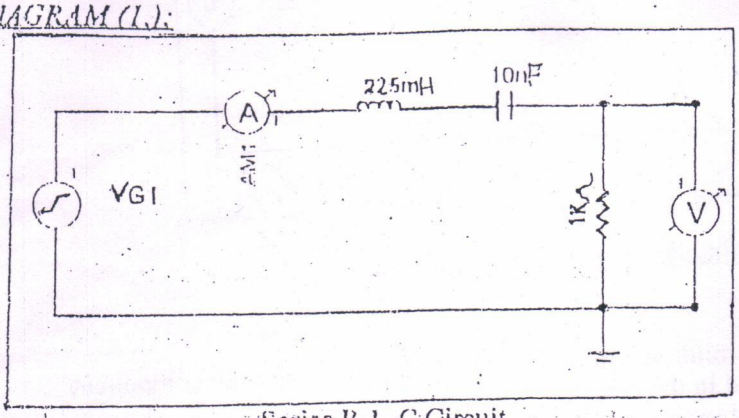
OBJECTIVE:

TO STUDY THE RESONENCE IN SERIES AND PARALLEL R-L-C CIRCUIT.

APPARATUS:

Sine Wave Generator (Signal Generator).
AC Ammeter.
AC Voltmeter.

CIRCUIT DIAGRAM (L):



Series R-L-C Circuit

PROCEDURE:

1. Rig up the test circuit as shown in circuit diagram 1. use the component values indicated in the circuit.
2. Adjust the signal generator controls so that its output is a sine wave of amplitude 0.02V and frequency is 10 HZ.
3. Apply this input to the test circuit and record the amplitude of output voltage.
4. Repeat last step for different frequencies mentioned in table 1.

S. NO.	*FREQUENCY (HZ.)*	*OUTPUT (mV.)*

Table 1.

Plot a graph between output voltage and frequency. Finally note peak value of voltage, resonance frequency and half power frequencies from the graph.

OBSERVATIONS:

Peak voltage = ... mV.
Resonance Freq. = ...KHZ.
Half power Freq. (lower) = ...KHZ.
Half power Freq. (upper) = ...KHZ.

P.T.O

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