COURSE TITLE : LINEAR INTEGRATED CIRCUITS LAB
COURSE CODE : 4047
COURSE CATEGORY : B
PERIODS/WEEK : 6
PERIODS/SEMESTER : 84
CREDITS : 3

LIST OF EXPERIMENTS

On completion of the course, the student will be able:

1. To construct and test electronic circuits using linear ICs

1.1 To design and setup (i) Voltage follower (ii) Inverting amplifier and (iii) Non-inverting amplifier circuits using Op-Amp 741 and

(i) Plot the I/O waveforms

(ii) Measure the gain

(iii) Find out the phase difference between input and output

1.2 To setup (i) Summing amplifier and (ii) Difference amplifier circuits using Op-Amp 741 and verify the output

1.3 To setup (i) Zero crossing detector (ii) Schmitt trigger circuits using Op-Amp 741 and

(i) Plot the I/O waveforms

(ii) Measure the V_{UT} and V_{LT} of the Schmitt trigger

1.4 To setup (i) Differentiator and (ii) Integrator circuits using Op-Amp 741 and plot their pulse response

1.5 To construct symmetrical and asymmetrical astable multivibrators using Op-Amp 741 and

(i) plot the waveforms

(ii) Find out the frequency of oscillation

1.6 To setup a monostable multivibrator using Op-amp 741 and

(i) Plot the waveforms

(ii) Measure the time delay

1.7 To setup a RC phase shift oscillator using Op-Amp 741 and

(i) Plot the output waveform

(ii) Measure the frequency of oscillation

1.8 To construct a Wien bridge oscillator using Op-Amp 741 and

(i) Plot the output waveform

(ii) Measure the frequency of oscillation

1.9 To setup symmetrical and asymmetrical astable multivibrators using IC 555 and

(i) Plot the output waveform

(ii) Measure the frequency of oscillation

1.10 To construct a monostable multivibrator using 555 IC and

(i) Plot the output waveform

(ii) Measure the time delay

1.11 To setup a voltage controlled oscillator using IC 566 and plot the waveforms

1.12 To setup a low voltage regulator using IC 723 and plot the regulation characteristics

1.13 To construct a +5V, 1A power supply using IC 7805

1.14 To construct a variable power supply using LM 317

1.15 To construct a dual power supply using LM 320 and LM 340