

**KURUKSHETRA UNIVERSITY KURUKSHETRA**  
**Course: B.Sc. (Hons) IT**  
**Semester-IV**

**Paper Code: BSIT-407**  
**Nomenclature of Paper- Analog Electronics (I.T Lab-V)**

**Note:-**

1. A student is required to perform a minimum of 7 experiments from the list given below during course of study(Semester III +Semester IV).
2. Instructions for Examiners:A candidate is required to perform one experiment.
3. Maximum number of students should not exceed ten in one group during course of studies as well as annual examination.

**M.M: 50**

EXPERIMENT (3 hrs) : 25  
PRACTICAL WORK BOOK : 15  
VIVA-VOCE : 10

**Time: 3 hrs**

List of experiments

- I. To study op-amp as-
  - (a)Unity gain buffer stage
  - (b) Non-inverting amplifier
  - (c) Inverting amplifier
- II To Study op-amp as-
  - (a) Summing amplifier
  - (b) Difference amplifier
- (III) To study the operation of integrating/differentiating circuits using op-amplifier.
  
- (IV) Measurement of offset voltage, bias currents & CMRR of an operational amplifier.
- (V) To study the operation of a monostable multivibrator circuit and measure its delay time.
- (VI) To design astable multivibrator and measure its frequency.
- (VII) Study of UJT and its characteristics.
- (VIII) Design a sawtooth generator using UJT.
- (IX) To study & design Hartley Oscillator & measure its frequency.
- (X) To study & design Colpitts Oscillator & measure its frequency.
- (XI) To study the design of Phase Shift Oscillator & measure its frequency.
- (XII) To study the condition for sustained oscillation for Wein bridge Oscillator.
- (XIII) To study the working of Schmitt trigger using operational amplifier.