

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>C</b>	<b>H</b>	<b>I</b>	<b>E</b>	<b>T</b>
<b>17U4ZMP2</b>	<b>MAJOR PRACTICAL 2</b>	<b>4</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>

## **CELL AND MOLECULAR BIOLOGY, BIOCHEMISTRY AND BIOCHEMICAL TECHNIQUES**

### **Cell Biology**

1. Microscopy - Cell Observation
  - Cell Measurements
2. Preparation of Cells and tissues
  - a) Squamous epithelium
  - b) Striated, Smooth and Cardiac Muscle.
3. Cell division
  - a) Mitosis — Root tips
  - b) Meiosis — Grass hopper testis
4. Cell Counts
  - a) Total count RBC & WBC - Human
  - b) Differential Count.

### **Biochemistry and biochemical techniques**

1. Estimation of Proteins, carbohydrate and lipids.
2. Qualitative analysis of protein, carbohydrates and lipids.

Instrumentation:

Principle and uses of

1. Electrophoresis
2. Chromatography
3. Spectrophotometer/ Colorimeter
4. Centrifuge

## **Molecular Biology and Genetics**

1. Isolation of DNA
2. Mounting polytene chromosomes
3. Observation of chromosomal variation from permanent slides or pictures provided

**Spotters:** Holiday structure, Twins, genetic disorders, Structure of DNA& RNA, Replication model, Mendelian traits in Man.