

**URUMU DHANALAKSHMI COLLEGE**

**DEPARTMENT OF MICROBIOLOGY**

**I MSc MICROBIOLOGY**

**SET 1**

**TOTAL MARKS: 75**

**SECTION A**

**10X2=20**

**ANSWER THE FOLLOWING**

1. Bright field Microscope.
2. Microtomy.
3. Biosensor.
4. Centrifugation.
5. Chromatography.
6. Electrophoresis.
7. PCR.
8. Colony Hybridization.
9. Vectors.
10. Immunoelectrophoresis.

## **SECTION B**

**5X5=25**

### **ANSWER THE FOLLOWING**

1. Write briefly about the principle and applications of phase contrast microscope.

(or)

Write briefly about the principle and applications of Fluorescence microscope.

2. Briefly explain about the principle and applications of spectrophotometer.

(or)

What are the different types and applications of centrifugation.

3. Explain in detail about the principle , preparation of columns, and elution of affinity chromatography.

(or)

Explain in detail about the principle and applications of Ion exchange chromatography.

4. Give an account on Rocket Immunoelectrophoresis.

(or)

Give an account on SDS PAGE.

5. Write briefly about the types and applications of Plasmids.

(or)

Write briefly about electroporation.

### **SECTION C**

**3X10=30**

**ANSWER ANY THREE**

1. Differentiate TEM and SEM.
2. Write briefly about the principle , working procedure and applications of GM counter.
3. Briefly explain about the principle and applications of HPLC.
4. Write in detail about the pulse field gel electrophoresis.
5. What are the different types of PCR and add its importance in various fields.