

B.Sc. (C.B.C.S. Pattern) Sem-V
USMBT-10 : Microbiology Paper-II - Bioinstrumentation

P. Pages : 2

Time : Three Hours



GUG/W/19/13106

Max. Marks : 50

1. Explain principle, instrumentation and application of mass spectrometer. **10**

OR

- a) Give the concept of chromophore. **2½**
- b) Explain Beer's law. **2½**
- c) Write any two application of UV-visible spectrophotometer. **2½**
- d) Write about electromagnetic radiation. **2½**

2. Write in detail about ion exchange chromatography. **10**

OR

- a) Write about Ascending paper chromatography. **2½**
- b) Describe process of TLC. **2½**
- c) Write basic principle of gas chromatography. **2½**
- d) Explain different partition forces. **2½**

3. Write in detail method of westerns blotting. **10**

OR

- a) Describe factor affecting electrophoretic mobility. **2½**
- b) Explain immunoelectrophoresis. **2½**
- c) Write in brief about SDS PAGE **2½**
- d) Explain Southern blotting. **2½**

4. Write in detail about Density gradient centrifugation. **10**

OR

- a) Explain the factor affecting sedimentation coefficient. **2½**
- b) Write about radioactive labelling. **2½**
- c) Describe rate zonal centrifugation. **2½**
- d) Autoradiography **2½**

5. Write any ten.

- a) What is bathochromic shift? **1**
- b) What is the use of monochromator. **1**
- c) What mull? **1**
- d) Name the carrier gas in gas chromatography. **1**
- e) Give the name ion exchange resins. **1**
- f) What is partition coefficient. **1**
- g) Name any two solubilizers **1**
- h) What is electrofocusing? **1**
- i) What is Northern blotting. **1**
- j) What is RCF? **1**
- k) What is unit of radioactivity? **1**
- l) What is 4m counter? **1**
