



1. Give the construction & working of UV-visible spectrophotometry. **10**

OR

Explain the principal & applications of paper chromatography.

2. What are the different types of centrifuges? Explain density gradient centrifugation. **10**

OR

Explain working principle & applications of paper electrophoresis.

3. a) Describe the spectrum of light. **2½**

b) Explain thin layer chromatography. **2½**

c) Describe slab gel electrophoresis. **2½**

d) Explain the RCF. **2½**

OR

e) Explain deviations of Beer's law. **2½**

f) Describe the principle of ion exchange chromatography. **2½**

g) Explain cellulose acetate electrophoresis. **2½**

h) Explain the principle of scintillation counter. **2½**

4. a) Give applications of spectrophotometry in biological sciences. **2½**

b) Explain the principle of gel filtration chromatography. **2½**

c) Give the principle & working of SDS-PAGE electrophoresis. **2½**

d) What are isotopes? Write about radioactive & stable isotopes. **2½**

OR

e) Explain the concept of Electromagnetic radiation. **2½**

f) Describe ascending paper chromatography. **2½**

g) Explain western blotting technique. **2½**

h) Give mechanism of ultracentrifugation. **2½**

5. Solve any ten.

- a) What is the use of monochromator in spectrophotometer. **1**
- b) What is IO/I? **1**
- c) What is extinction coefficient? **1**
- d) What is RCF? **1**
- e) Name the exchanger material in ion exchange chromatography. **1**
- f) What is partition coefficient. **1**
- g) Name any three solubilizer used in electrophoresis. **1**
- h) Enlist blotting techniques. **1**
- i) Write any two gels used in electrophoresis. **1**
- j) What is Svedberg's unit. **1**
- k) What is unit of radioactivity? **1**
- l) What is GM counter? **1**
