

(Time: 3 Hours)

Total Marks: 80

- NB: (1) Question No.1 is compulsory
(2) Attempt any 3 questions out of remaining 5 questions
(3) Each question is of 20 marks
(4) Figures to right indicates full marks

- Q.1 Write Short Notes on Four of the following 20
a- Gradient material
b- Thin layer chromatography
c- Capillary electrophoresis
d- Limitations of Beer's Lambert Law
e- Applications of radioisotopes in life science
- Q.2 a) Explain mechanism of differential centrifugation 10
b) Describe principle and components of High Performance Liquid Chromatography 10
- Q.3 a) Describe principle, working and applications of Ion-Exchange chromatography 10
b) Discuss various factors affecting on electrophoresis 10
- Q.4 a) Discuss sodium dodecyl sulphate polyacrylamide gel electrophoresis 10
b) Describe Lambert Beers law 10
- O.5 a) Describe principle, instrumentation and application of UV-visible spectrophotometry 10
b) Discuss principle and applications of tracer elements 10
- Q.6 a) Describe detection and measurement of radioactivity using ionization chamber 10
b) Describe seperation of particles by size exclusion chromatography 10