

106/15

Sub : Analytical Methods in  
Biotechnology. BT/IV/cras / Amb  
S.E-I~~V~~ Sem - Biotech.  
(3 Hours) QP Code : 3672  
Total: 80 Marks

26

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 | (a) Write a note on Paper Chromatography                                    | (5)  |
|     | (b) Write different factors affecting on electrophoresis                    | (5)  |
|     | (c) Describe Rate -Zonal centrifugation                                     | (5)  |
|     | (d) Write a note on Autoradiography                                         | (5)  |
| Q.2 | (a) Describe affinity chromatography                                        | (10) |
|     | (b) Explain principle of Lambert-Beer's law with mathematical equation      | (10) |
| Q.3 | (a) Describe detection & measurement of radioactivity by ionization chamber | (10) |
|     | (b) Explain agarose gel electrophoresis with application                    | (10) |
| Q.4 | (a) Write different types of centrifuge                                     | (10) |
|     | (b) Describe UV-Visible spectrophotometer                                   | (10) |
| Q.5 | (a) What is radioactivity? Discuss Geiger-Muller experiment                 | (10) |
|     | (b) Describe Immuno-electrophoresis with applications                       | (10) |
| Q.6 | (a) What is chromatography? Discuss Gas chromatography                      | (10) |
|     | (b) Describe Differential centrifugation                                    | (10) |