

Code: R7222303

R07

B.Tech II Year II Semester (R07) Supplementary Examinations, April/May 2013

INSTRUMENTAL METHODS OF ANALYSIS

(Biotechnology)

Time: 3 hours

Max. Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Describe various analytic methods available for biochemical analysis.
(b) Classify various instrumental methods used for analysis.
- 2 Write about the instrumentation, working principle, light source magnification of bright field microscope.
- 3 Describe the principle of sedimentation. What is various sedimentation techniques used in biochemical analysis?
- 4 (a) What is electromagnetic radiation? Classify electromagnetic radiation stating their application.
(b) State and explain Beer-Lambert's law.
- 5 Discuss principle, instrumentation, working and applications of infrared spectrometer.
- 6 Discuss principle, instrumentation, working and application of pH measurement.
- 7 Describe in detail about principle, working and application of Gel-Permeation chromatography.
- 8 (a) Describe about interaction of nuclear radiation with matter.
(b) Write the theory behind NMR spectroscopy. Draw a schematic diagram of NMR spectroscopy.
