

2055
Bachelor of Arts (FYUP) Second Semester
Chemistry

Paper: Basic Analytical Techniques - II

Time allowed: 3 Hours

Max. Marks: 40

NOTE: Attempt three questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

1. (a) List two important applications of chromatography.
(b) What is chromatogram?
(c) What are mobile phase and stationary phase?
(d) How chromatoplates are prepared?
(e) What are adsorbents? (5×2)

UNIT - I

2. (a) What is chromatography? Classify various types of chromatographic techniques. Discuss general theory of chromatographic techniques.
(b) Differentiate between frontal and elution development of chromatogram. (8,7)
3. (a) What do you mean by High Equivalent theoretical plate? Discuss in detail.
(b) Discuss Van Deemter equation. (8,7)

UNIT - II

4. (a) What is retardation factor? How is it measured?
(b) Discuss various factors affecting column efficiency in column chromatography.
(c) Write a detailed note on two-dimensional TLC. (5,5,5)
5. (a) Differentiate between descending and ascending technique of developing a chromatogram.
(b) List various types of detectors used in column chromatography.
(c) Give various applications of TLC. (5,5,5)

x-x-x