

**GOVT DEGREE COLLEGE NANDIKOTKUR
NANDYAL DIST**

**B.Sc, CHEMISTRY - IIIrd Year (2024-25)
SEMESTER-V- QUESTION BANK VII-B.**

PAPER: VII B [Analytical methods in Chemistry - II]

UNIT-1: chromatography - Introduction & classification.

Essay Questions: (10 Marks)

- (1) What is chromatography? write a classifications of Chromatography.
- (2) Define Rf-Value? Give the factors affecting it.

Short- Answer questions: (2 Marks)

1. Write principle in chromatography
2. write about the nature of adsorbents.

Objective Type Questions:- (1 mark)

1. In chromatography a Phase that does not move called
 - (a) stationary phase
 - (b) mobile phase
 - (c) Gaseous phase
2. The arrangement of solvents on the increasing order of Polarity is Known as_____.

UNIT-II: TLC and Paper Chromatography.

Essay Questions: (10 marks)

1. Explain experimental Procedure of TLC.
2. Explain ascending Paper chromatography.

Short Answer Questions : (2 marks)

1. write applications for TLC.
2. What is Paper Chromatography?
3. write Descending paper chromatography.

Objective Type Questions: (1 mark)

- (1) Radial chromatography also called as -
- (a) Circular chromatography
 - (b) TLC
 - (c) Column chromatography
- (2) In paper chromatography _____ grade of paper is used.

UNIT-III: Column Chromatography.

Essay Questions: (10 marks)

- (1) Explain Column chromatography..
- (2) Explain Principle and instrumentation of HPLC.

Short-Answer Questions: (2 Marks)

1. write applications of Column chromatography.
2. write basic Principles of HPLC.

Objective Type Questions (1 Mark)

1. Column chromatography is also known as
 - (a) Adsorption chromatography
 - (b) ion-exchange chromatography
 - (c) Radial chromatography
2. HPLC means_____

UNIT: IV : spectrophotometry.

Essay Question:

1. state and explain Lambert's law and Beer-Lambert's law.
2. Explain the application of Beer-Lambert law for quantitative analysis of Manganese in Manganous Sulphate.

Short-Answer Questions:(2 Marks)

1. What are single beam and double beam spectrophotometers?
2. What are the limitations of Beer-Lambert's law?

objective Type Questions:- (1 Mark)

- 1.The ratio of the absorbance (A) to the product of Concentration (C) and path Length (t) is called____
 - (a)Absorptivity
 - (b) Transmittance

(c)Frequency

2.Beer-Lambert's Law equation _____

UNIT-V: Atomic Spectroscopy

Essay questions:

- (1) What is atomic spectroscopy? Explain Types of atomic spectroscopy?
- (2) write about applications of atomic emission & atomic absorption spectroscopy.

Short-Answer Questions:

- (1) Draw and explain the atomizer.
- (2). Define Atomization.