

**GOVT DEGREE COLLEGE NANDIKOTKUR, NANDYAL
DIST**

B.Sc, CHEMISTRY - IIIrd Year (2024-25)

SEMESTER-V- QUESTION BANK VI-B.

PAPER: VI B [Analytical methods in Chemistry - I]

UNIT-I: Quantitative analysis - I

Essay Questions: (10 Marks)

- (1) Explain Various concentration terms used in Volumetric analysis.
- (2) Describe use of common laboratory apparatus.

Short Answer Questions :(2 Marks.)

1. Define Molarity and Normality.
2. Write the preparation of a standard solution

Objective Type Questions: (1 Mark)

1. The number of gram moles of solute present in one litre of solution is called [.]
 - (a) molarity
 - (6) Normality
 - (c) Mole Fraction
 - (d) Mole ratio
2. Normality Units_____

UNIT-II: Quantitative analysis - I II .

Essay questions: (10 Marks)

- (1) Explain Acid-Base Titrations with help of titration curves.
- 2) Explain Complexometric titrations.
- (3) write the principles of Gravimetric analysis.

short Answer Questions: (2 marks)

1. What are redox-reactions.
2. Write note on indicators
3. What is co-precipitation?
4. What is Post-Precipitation?
5. What is coagulation..

Objective Type Questions : (1 mark)

1. Redox-reactions also called as [.]
 - a) oxidation-Reduction reactions
 - (b) Ionic reactions.
 - (c) Precipitate reactions
 - (d) coagulation
2. _____ indicator is used in strong acid and weak base type of Titrations.

UNIT-III: Treatment of Analytical Data

Essay Questions: (10 marks)

1. What are significant Figures give their importance.

2. What are errors? Explain Types of errors.

Short - Answer Questions: (2 marks)

1. What are accuracy and Precision.

2. Write about standard deviation.

Objective Type Questions:(1 mark)

1)0.00052 has _____significant figures.[.]

a)2

(b)3

(c) 6

(d) 5

2. Uncertainty in reading an instrument scale is_____type of error.

UNIT-IV: Separation Techniques

Essay Questions: (10 Marks)

1. Explain Batch and continuous extractions.

2.. Explain Ion-Exchange resin chromatography.

Short-Answer Questions: (2 marks)

1. write principle in Solvent-Extraction.

2. What are the factors affecting solvent extraction?

3. What is counter-Current extraction?

Objective Type Questions: (1 Mark)

1. Counter-current extraction method has discovered by

(a) Craig

(6) Mosley

(C) Newland

(d) Avogadro

2. Zeolites are _____

UNIT-V: Analysis of water

Essay Questions: (10 marks)

1. How do you determine the total hardness of water
2. How do you determine Chloride using Mohr's method..

Short-Answer Questions: (2 Marks)

1. What is turbidity of water?
2. Define Dissolved Oxygen and COD.