

Syllabus / Paper pattern / Marks Division

Total Marks = 30

Q No. 1 : Complete salt analysis ----- 10 Marks

- (i) Acid radicals ----- 04 marks
 (ii) Basic radicals ----- 06 Marks

Salts which need to prepare for send up exam only1- Na₂CO₃ 2- NaHCO₃ 3- KCl 4- CaCl₂ 5- MgSO₄ 6- ZnCO₃ 7- AlPO₄ 8- CuSO₄ 9- Pb(CH₃COO)₂

Q No. 2 : Volumetric analysis ----- 10 Marks

- (i) Acid – Base Titration
 (ii) Redox Titration
 (iii) Iodimetric Titration

Titrations which need to prepare for send up exam.**Acid Base Titration**

- The given solution contains 6.0 g of impure NaOH dissolved in 1000cm³. Determine percentage impurity in the given sample volumetrically.
- The given solution contains 2.5 g of soap dissolved per 250cm³ of solution. Determine the percentage of free alkali in soap.
- The given solution contains 25 gm of mixture of Na₂SO₄ and Na₂CO₃ dissolved per dm³. Determine the amount of Na₂SO₄ in 50 gm of mixture by volumetrically.

Redox (KMnO₄) Titrations

- The given solution contains 27.8 g of FeSO₄.X H₂O dissolved per dm³. Determine the value of "X" in FeSO₄.X H₂O volumetrically.
- The given solution contains 6.5 g of KMnO₄ has been dissolved/ dm³. Determine the percentage of Mn⁺² in the given sample volumetrically.
- Determine the solubility of oxalic acid volumetrically at room temperature.

Iodine Titrations

- 15.8 gm of alkali metal thiosulphate M₂S₂O₃ is dissolved per dm³. Calculate the atomic weight of metal M by volumetric analysis.

Q No. 3 : 1st Year Minor Practicals Which need to be learnt for send up exams----- 03 Marks

- Ink mixture chromatography
- Cd⁺², Pb⁺² chromatography
- Crystallization of Benzoic acid.
- Purification of common salt by common ion effect.
- Determination of Heat of Neutralization by calorimeter.

Q. No. 4 : Complete & checked practical note book ----- 05 Marks

Q. NO 5 : Viva ----- 02 Marks.

❖ Please Note :-In First 20 Minutes(i) For Q No 2 : (05) Marks

Write principle ,standard solution ,indicator ,end point ,chemical equation ,procedure and supposed readings and calculations

(ii) For Q No 3 : Write procedure whatever the minor practical . And (03 Marks)

- For chromatographyDraw the table of calculations.
- For Benzoic acid crystallizationDraw the diagram.
- For heat of neutralizationwrite calculations.
- For common ion effectWrite principle & chemical equation.

After First 20 Minutes

- Students have to Perform the titration (Q # 2)..... (05 Marks)

- Salt analysis (Q # 1) (10 Marks)
 - Students have to perform the (Q # 3) and must write the result of minor practical (02 Marks)
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