

**C.U.SHAH UNIVERSITY**

Wadhwan City

Subject Code : 5SC01CHC4

Summer Examination-2014

Date: 19/06/2014

Subject Name Analytical Chemistry

Branch/Semester:- M.Sc(Chemistry)/I

Time:10:30 To 1:30

Examination : Remedial

**Instructions:-**

- (1) Attempt all Questions of both sections in same answer book / Supplementary
- (2) Use of Programmable calculator & any other electronic instrument is prohibited.
- (3) Instructions written on main answer Book are strictly to be obeyed.
- (4) Draw neat diagrams & figures (If necessary) at right places
- (5) Assume suitable & Perfect data if needed

**SECTION I****Q-1. Answer the following questions.**

1. Define: Qualitative and Quantitative analysis with example. (2)
2. Define: Accuracy & Precision (2)
3. Define: LOD & LOQ (2)
4. State law of mass action. (1)

**Q-2. Discuss the following question.**

1. Write principle and applications of the following:
  - a) Turbidimetry (5)
  - b) Nephelometry (5)
2. What is analytical chemistry? Explain the types of chemical analysis with suitable examples. (4)

**OR**

1. Give the principle and application of following:
  - a) UV visible spectrophotometry (5)
  - b) Flame photometry (5)
2. Classify instrumental methods of chemical analysis with example (4)

**Q-3. Answer the following questions**

1. Write a note on instrumentation of Flame Photometry with neat labeled diagram. (7)
2. Describe about instrumentation of Fluorimetry with neat labeled diagram. (7)

**OR**

1. Describe the method of determination of oil and fat in food samples. (7)
2. Enumerate and discuss chemical tests for qualitative analysis of Proteins. (7)



## SECTION II

### Q.1. Answer the following questions.

1. Enumerate any four indicators used in acid base titration. (2)
2. Define Carbohydrates and give the names of their natural sources. (2)
3. Define: Chromophore (1)
4. Define: Titration (1)
5. Define: End Point. (1)

### Q-2. Discuss the following Questions.

1. Explain hydrolysis of salt of strong acid and weak base. (5)
2. Write principle and application of Flourimetry. (5)
3. Differentiate between turbidimetry and Nephelometry. (4)

**OR**

1. Write principle and application of acid base neutralization titration in general. (5)
2. Explain principle of titration of Calcium gluconate. (5)
3. Discuss common ion effect (4)

### Q-3. Answer the following questions in detail.

1. Explain Significance of law of mass action and equilibrium constant. (7)
2. Describe chemical tests for qualitative analysis of Carbohydrates. (7)

**OR**

1. Describe instrumentation of UV Visible spectrophotometry with neat labeled diagram. (7)
2. Describe Lambert-beer's law in detail. (7)

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