# B.Sc. DEGREE EXAMINATION,APRIL 2019
## III Year V Semester
## Analytical Chemistry - I

**Time : 3 Hours** **Max.marks :60**

### Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. What is the difference between precision and accuracy?
2. What are the common adulterants used in Ghee?
3. What is meant by base peak in mass spectra?
4. Give the stretching frequency for OH group in IR spectra?
5. State beer lamberts law.
6. What is the principle behind ion exchange chromatography?
7. Mention any to uses of soxhlet extraction.
8. Give the structure of DMG.
9. What are sequestering agents give examples?
10. Define elution.
11. Define chromophore give examples.
12. Give the TGA thermogram of calcium oxalate monohydrate.

### Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. What are the conditions for effective precipitation?
14. What is factional crystallization explain its basic principle?
15. Explain the types of electronic transitions and what is bathochromic shift?
16. Write briefly about electrophoresis.
17. Explain the instrumentation of IR using suitable block diagram?
18. Discuss the different types of vibrations exhibited by water and ammonia molecule.
19. Discuss the principle behind solvent extraction process.

## **Section C** $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. What are errors how are they classified explain them briefly?
21. Discuss briefly the principles and applications of gravimetric analysis with suitable examples.
22. Describe briefly the principle, instrumentation and applications of HPLC.
23. Discuss in detail the theory, instrumentation of thermo gravimetric methods.
24. Write briefly about the raman spectrosopy.

# B.Sc. DEGREE EXAMINATION,APRIL 2019
## III Year V Semester
## Analytical Chemistry - I

**Time : 3 Hours** **Max.marks :60**

### Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. What is the difference between precision and accuracy?
2. What are the common adulterants used in Ghee?
3. What is meant by base peak in mass spectra?
4. Give the stretching frequency for OH group in IR spectra?
5. State beer lamberts law.
6. What is the principle behind ion exchange chromatography?
7. Mention any to uses of soxhlet extraction.
8. Give the structure of DMG.
9. What are sequestering agents give examples?
10. Define elution.
11. Define chromophore give examples.
12. Give the TGA thermogram of calcium oxalate monohydrate.

### Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. What are the conditions for effective precipitation?
14. What is factional crystallization explain its basic principle?
15. Explain the types of electronic transitions and what is bathochromic shift?
16. Write briefly about electrophoresis.
17. Explain the instrumentation of IR using suitable block diagram?
18. Discuss the different types of vibrations exhibited by water and ammonia molecule.
19. Discuss the principle behind solvent extraction process.

## **Section C** $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. What are errors how are they classified explain them briefly?
21. Discuss briefly the principles and applications of gravimetric analysis with suitable examples.
22. Describe briefly the principle, instrumentation and applications of HPLC.
23. Discuss in detail the theory, instrumentation of thermo gravimetric methods.
24. Write briefly about the raman spectrosopy.