

B

1131

M.Sc. (Applied Chemistry)
(Semester-III) EXAMINATION, 2016

Paper-M3AC12-CC-10

ANALYTICAL METHODS

Time allowed : Three hours

Maximum marks : 40

Part-A (Compulsory) {Marks : 8}

Answer all eight questions (20 words each). Each question carries equal marks.

Part-B (Compulsory) {Marks : 8}

Answer all four questions (50 words each). Each question carries equal marks.

Part-C {Marks : 24}

Answer all three questions (400 words each), selecting one from each unit. Each question carries equal marks.

1. ✓ What do you mean by Sampling? 1

2. ✓ Give the different possibilities of Errors. 1

3. ✓ How are Glasswares calibrated? 1

4. ✓ What is Co-precipitation? 1

5. ✓ What is the main use of Automatic Thermogravimetric Analysis? 1

6. ✓ What is the effect of dilution on Conductance? 1

7. ✓ What are the advantages of high frequency titrimetry over conductometric titrimetry? 1

8. ✓ Why precipitation titrations can not be carried out effectively as acid-base titrations? 1

Part-B (Compulsory) {Marks : 8}

9. ✓ What are the steps necessary when confronted with an unfamiliar quantitative determination? 2

10. Give a brief account of organic precipitating reagents. 2

11. What is differential thermal analysis? What factors affect the DTA curve? 2

12. Discuss important applications of conductivity measurements. 2

15. Give different conductometric titrations and their applications. 8

Or

Give general principle and instrumentation of conductometry. What is electrolytic conductance? 8

Part-C {Marks : 24}

Unit-I

13. Give the methods of sampling in different physical states. 8

Or

Give the classification of analytical methods both classical and instrumental. How is the method of analysis selected? 8

Unit-II

14. Give the various types of titrations and their applications. 8

Or

Give the theory, instrumentation and applications of thermogravimetric analysis. 8