

**GOVERNMENT COLLEGE (A), RAJAMAHENDRAVARAM**  
**I B.Sc. ANALYTICAL CHEMISTRY**  
**SEMESTER – II**  
**QUESTION PAPER BLUE PRINT**  
**Course -4: BASIC PRINCIPLES IN ANALYTICAL CHEMISTRY**

**TIME: 2<sup>1</sup>/<sub>2</sub> hrs.**

**MARKS: 50 M**

**PART -A**

**Answer ALL the Questions**

**5 x 7 = 35 M**

1. 2 Questions from UNIT- I
2. 2 Questions from UNIT- II
3. 2 Questions from UNIT-III
4. 2 Questions from UNIT IV
5. 2 Questions from UNIT-V

**PART – B**

**Answer any FIVE Questions**

**5 x 3 = 15 M**

6. 1 Question from UNIT- I
7. 2 Questions from UNIT- II
8. 2 Question from UNIT- III
9. 2 Questions from UNIT- IV
10. 1 Questions from UNIT- V

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**SEMESTER-II**  
**MODEL PAPER (From 2023-234)**  
**Course - 4: BASIC PRINCIPLES IN ANALYTICAL CHEMISTRY**

**Time: 2<sup>1</sup>/<sub>2</sub> hrs.**

**Maximum Marks: 50**

**PART- A**

**Answer ALL the questions. Each carries SEVEN marks**

**5 x 7 = 35 M**

1. What are Primary standard solutions? Explain the experimental procedure for the preparation of a primary standard solution.  
(OR)
2. What are secondary standard solutions? Explain the experimental procedure for the preparation of a secondary standard solution.
3. Explain the methods of detecting analytes based on Electric charge and electromagnetic radiation  
(OR)
4. Explain about the Instrumental methods of analysis with examples
5. Explain in detail about pH meter  
(OR)
6. Write in detail about the single pan analytical balance
7. What are Errors? Write about the classification of errors  
(OR)
8. What are significant figures? Write the computation rules of significant figures
9. Explain different theories of Indicators  
(OR)
10. Explain the acid – base titrations with examples

**PART- B**

**Answer any FIVE of the following questions. Each carries THREE marks 5 x 3 = 15 M**

11. Define mole and molar concentration
12. Write briefly about chemical analysis
13. Discuss Qualitative analysis in briefly
14. How do you calibrate volumetric flask?
15. Write the uses of commonly used laboratory glass apparatus
16. Define mean and standard deviation
17. Explain briefly about accuracy
18. What are Buffer solutions?