

# 2012 Scheme

QP CODE: 212006

Reg. No: .....

## Second Year B.Pharm Degree Supplementary Examinations February 2024

### Pharmaceutical Analysis

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Write equations wherever necessary.

#### Essays

(3x10=30)

1. Explain the basic concepts in gravimetric analysis. Discuss briefly on co-precipitation and post precipitation. What are the pharmaceutical applications of gravimetric analysis.
2. • Explain the concept of oxidation-reduction titrations. Discuss on redox indicators.  
• What is Iodometry and Iodimetry titration. Explain iodometry titration with the help of examples.
3. Write a brief note with appropriate examples on the theory of indicators used in neutralization titrations.

#### Short notes

(14x5=70)

4. Explain the factors affecting the stability constant of metal-EDTA complexes.
5. Explain the preparation and standardization of 0.1 M Silver Nitrate solution.
6. Define the term "Significant figure". Calculate,  $258.10 + 0.066 + 0.382466 + 93.6544 + 0.259 =$
7. Explain the principle of endpoint detection using the external indicator in diazotization. Write necessary chemical reactions.
8. Explain Arrhenius's theory of acids and bases and describe its merits and demerits.
9. Explain water interferences in non-aqueous titration. What is the permissible limit of water in 0.1M perchloric acid. How is it maintained.
10. How does the temperature affects the glassware calibration.
11. What are the advantages and disadvantages of starch as an indicator in Iodine Titrations.
12. Derive and explain the stability constant of the metal-EDTA complex and mention the importance of buffers in complexometric titrations.
13. Explain with a suitable example the principle of non-aqueous titration of weak bases.
14. What is argentometric titration. Describe Fajan's method in detail.
15. Can hydrochloric acid be used in ceric ammonium sulphate titrations. Justify your answer.
16. Enlist the steps involved in the gravimetric analysis. Explain drying and ignition of precipitate with suitable examples.
17. Explain the oxygen flask combustion method.

\*\*\*\*\*