### THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

# [BPHARM 0122] JANUARY 2022 Sub. Code: 2003 (MARCH 2021 EXAM SESSION)

# B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS) PCI Regulation 2017 – SEMESTER I PAPER II – PHARMACEUTICAL ANALYSIS - I O.P. Code: 562003

Time: Three hours Maximum: 75 Marks

## I. Elaborate on: Answer any TWO questions.

 $(2 \times 10 = 20)$ 

- 1. What are the different indicators used in Complexometric titration? Describe the use of Masking and Demasking agents in Complexometry.
- 2. Describe in detail about the following a) Volhard's method b) Fajan's method
- 3. Discuss the construction, working, advantages and disadvantages of Dropping Mercury Electrode.

# II. Write notes on: Answer any SEVEN questions.

 $(7 \times 5 = 35)$ 

- 1. Write briefly about the different types of Errors and methods to minimize the Errors.
- 2. Explain the various steps involved in Gravimetric analysis.
- 3. Write the principle, reaction and procedure involved in the Limit test for Iron.
- 4. Describe in detail about the theories of Acid-base indicators.
- 5. Discuss in detail about the applications of Conductometric titrations.
- 6. Give an account on the preparation and standardization of Hydrochloric acid.
- 7. Explain the principle and applications of Dichrometry and Iodimetry.
- 8. Define Potentiometry. Discuss the construction and working of any one Indicator Electrode.
- 9. How will you estimate Ephedrine HCl by Non aqueous titration?

### III. Short answers on: Answer ALL questions.

 $(10 \times 2 = 20)$ 

- 1. What do you mean by Molarity?
- 2. Define Precipitation titration.
- 3. What is Nernst equation?
- 4. Define Migration current.
- 5. What is Pharmacopoeia?
- 6. Define Precision.
- 7. What is Iodometry?
- 8. List out types of solvents used in Non-aqueous titrations.
- 9. Define Cerimetry.
- 10. What are the advantages of Conductometric titrations?