

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

[B.PHARM 0524]

MAY 2024
(FEBRUARY 2024 EXAM SESSION)

Sub. Code: 4257

B.PHARMACY DEGREE COURSE (NON-SEMESTER EXAMINATIONS)
SECOND YEAR (Regulation 2009-2010)
PAPER II – PHARMACEUTICAL ANALYSIS AND PHYSICAL CHEMISTRY
Q.P. Code: 564257

Time: Three hours

Answer ALL questions

Maximum: 100 Marks

SECTION-A
(PHARMACEUTICAL ANALYSIS)

I. Elaborate on: (1 x 20 = 20)

1. a) Define error. Explain the types and minimization of error.
b) Discuss in detail about theories of indicator in neutralization titration.

II. Write notes on: (4 x 5 = 20)

1. Describe types of solvent used in non aqueous titration.
2. Explain volhards method with example.
3. How will you prepare and standardize 0.02M potassium permanganate?
4. Explain oxygen combustion flask method.

III. Short answers on: (5 x 2 = 10)

1. Define post precipitation.
2. What is significant figure?
3. Define pH.
4. What is Iodimetry?
5. Define complexation.

SECTION-B
(PHYSICAL CHEMISTRY)

I. Elaborate on: (1 x 20 = 20)

1. a) Explain briefly about types of adsorption isotherm.
b) Elaborate on the construction, principle of operation and applications of Refractometer.

II. Write notes on: (4 x 5 = 20)

1. State and explain second law of thermodynamics.
2. Explain types of catalysis.
3. Explain the factors influencing adsorption.
4. Define internal energy and enthalpy. Give relation between ΔH and ΔE .

III. Short answers on: (5 x 2 = 10)

1. Define solution with example.
2. What is spontaneous process?
3. Define catalyst.
4. Define order of reaction.
5. State Lavoisier Laplace Law.
