

[LB 4257]

AUGUST 2012

Sub. Code: 4257

SECOND YEAR B.PHARM. EXAM

Paper II – PHARMACEUTICAL ANALYSIS AND PHYSICAL CHEMISTRY

Q.P. Code : 564257

Time : Three hours

Maximum: 100 Marks

(180 Min) Answer ALL questions in the same order.

Answer Section A and B in SEPARATE Answer Book.

SECTION A

(PHARMACEUTICAL ANALYSIS)

I. Elaborate on:

Pages Time Marks
(Max.)(Max.)(Max.)

- | | | | |
|----------------------------------------------------------------|----|----|----|
| 1. a) Explain in detail about oxygen flask combustion method? | | | |
| b) Masking and de-masking agents in complexometric titrations. | 19 | 33 | 20 |

II. Write notes on:

- | | | | |
|-------------------------------------------------------------------|---|---|---|
| 1. How do you determine the acid value? | 3 | 8 | 5 |
| 2. Write notes on dead stop end point? | 3 | 8 | 5 |
| 3. Write the mechanism of buffer and its applications? | 3 | 8 | 5 |
| 4. What is Gasometry? Give the procedure for the assay of oxygen? | 3 | 8 | 5 |

III. Short Answers:

- | | | | |
|-------------------------------------------------------|---|---|---|
| 1. Define iodometry? | 1 | 5 | 2 |
| 2. Give the example of acid-base indicators? | 1 | 5 | 2 |
| 3. What is plane polarized light? How it is achieved? | 1 | 5 | 2 |
| 4. Define chelating agents? | 1 | 5 | 2 |
| 5. What is a real and ideal solution? | 1 | 5 | 2 |

SECTION – B

(PHYSICAL CHEMISTRY)

IV. Elaborate on:

- | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|
| 2. Define and explain the various types of colligative properties. Write the methods used for determining the elevation of boiling point? | 19 | 33 | 20 |
|-------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|

V. Write notes on:

- | | | | |
|------------------------------------------------------------------------------|---|---|---|
| 1. Explain Debye-Huckel's theory? | 3 | 8 | 5 |
| 2. Explain Phase rule and the terms phase, component and degrees of freedom? | 3 | 8 | 5 |
| 3. What is plane polarized light? How it is achieved? | 3 | 8 | 5 |
| 4. Explain Hess law of constant heat of summation? | 3 | 8 | 5 |

VI. Short Answers:

- | | | | |
|----------------------------------------|---|---|---|
| 1. Define partition co-efficient? | 1 | 5 | 2 |
| 2. State second law of thermodynamics? | 1 | 5 | 2 |
| 3. What is Nernst distribution? | 1 | 5 | 2 |
| 4. Define order of reaction? | 1 | 5 | 2 |
| 5. What is adsorption? | 1 | 5 | 2 |
