



[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?

2. Write notes on dead stop end point?

3. Write the mechanism of buffer and its applications?

4. What is Gasometry? Give the procedure for the assay of oxygen?

|   |   |   |
|---|---|---|
| 3 | 8 | 5 |
| 3 | 8 | 5 |
| 3 | 8 | 5 |
| 3 | 8 | 5 |

**III. Short Answers:**

1. Define iodometry?

2. Give the example of acid-base indicators?

3. What is plane polarized light? How it is achieved?

4. Define chelating agents?

5. What is a real and ideal solution?

|   |   |   |
|---|---|---|
| 1 | 5 | 2 |
| 1 | 5 | 2 |
| 1 | 5 | 2 |
| 1 | 5 | 2 |
| 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?

2. Explain Phase rule and the terms phase, component and degrees of freedom?

3. What is plane polarized light? How it is achieved?

4. Explain Hess law of constant heat of summation?

|   |   |   |
|---|---|---|
| 3 | 8 | 5 |
| 3 | 8 | 5 |
| 3 | 8 | 5 |
| 3 | 8 | 5 |

**VI. Short Answers:**

1. Define partition co-efficient?

2. State second law of thermodynamics?

3. What is Nernst distribution?

4. Define order of reaction?

5. What is adsorption?

|   |   |   |
|---|---|---|
| 1 | 5 | 2 |
| 1 | 5 | 2 |
| 1 | 5 | 2 |
| 1 | 5 | 2 |
| 1 | 5 | 2 |

