**Printed Pages:01** **Sub Code:BP-302T**

**Paper Id:** 233443 **Roll No.** | | | | | | | | | | |

**B PHARM**
**(SEM III) THEORY EXAMINATION 2022-23**
**PHYSICAL PHARMACEUTICS I**

***Time: 3 Hours*** ***Total Marks: 75***

**Note:** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

**1. Attempt *all* questions in brief.** **10 x 2 = 20**

(a) State the equation forIdeal solubility parameter.

(b) Define Solvation and Association.

(c) Define the term "eutectic mixture" with an example.

(d) Enumerate the term "Vapor Pressure".

(e) Explain the term "Detergency".

(f) Classify surfactants with examples.

(g) List out the various methods used for determining protein binding.

(h) Define Chelate compounds.

(i) Define Buffer capacity.

(j) Define Sorensen's pH scale.

**SECTION B**

**2. Attempt any *two*parts of the following:** **2 x 10 = 20**

(a) Demonstrate various methods used for the determination of surface and interfacial tension.

(b) Describe the classification of complexation in detail.

(c) Describe the solubility of liquids in liquids.

**SECTION C**

**3. Attempt any *five*parts of the following:** **7 x 5 = 35**

(a) Explain the working of the polarimeter for finding optical rotation.

(b) Explain the differences between the solid-crystalline and amorphous states.

(c) Derive the equations for spreading coefficient and surface free energy.

(d) Discuss the various methods used for the analysis of complex formation.

(e) Discuss the distribution law along with its applications and limitations.

(f) Demonstrate various applications of buffers in pharmaceutical and biological systems.

(g) Derive the buffer equations for a weak acid and its salt.

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