M.MARKS: 75

Roll No:

BPHARM

(SEM III) THEORY EXAMINATION 2023-24

PHYSICAL PHARMACEUTICS I

TIME: 3 HRS

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1.	Attempt all questions in brief.	$10 \ge 2 = 20$
a.	Define the term critical solution temperature with example.	
b.	What are liquid crystals? Name its two types.	
c.	What is surface tension and interfacial tension?	
d.	Define chelate compounds and chelation.	
e.	What is Sorensen's pH scale?	
f.	Define buffer capacity and its formulae.	
g.	Define solvation and association.	
h.	Define glassy state.	
i.	Define buffer isotonic solution.	0
j.	Define detergency.	

SECTION B

2. Attempt any *two* parts of the following:

a.	Describe solubility of Liquids in liquids in detail.
b.	Describe classification of complexation in detail along with examples.
с.	Define buffer isotonic solution. Differentiate between hypertonic and hypotonic buffer solution. Describe the methods of adjustment of tonicity.

SECTION C

3. Attempt any *five* parts of the following: $7 \ge 5 = 35$ Elaborate electrometric and calorimetric pH determination method. a. Discuss protein binding in detail. Write down its significance. b. Write down methods for measurement of surface and interfacial tension. Discuss in c. brief about any one of the methods in detail. d. Define Adsorption. Discuss in detail about types of adsorptions. Discuss HLB scale in detail e. f. Define spreading coefficient. Discuss in detail about reason for spreading. Define Raoult's law. Discuss about deviations from Raoult's law giving examples. g.

