Subject Code: BP302T

PAPER ID-311004

Roll No: | | | | | | | | | | | | | |

B PHARM

(SEM: III) THEORY EXAMINATION 2020-21

PHYSICAL PHARMACEUTICS I

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

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

SECTION A

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

a.	Define Molarity and Normality.
b.	Differentiate crystalline solid and amorphous solid.
c.	Define critical solution temperature.
d.	What is critical micelles concentration.
e.	What are chelating agents?
f.	Define buffer capacity.
g.	Detergency.
h.	Define glassy state.
i.	What is liquid crystal? Name its two types.
j.	What is surface tension and surface free energy?

SECTION B

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

a.	Derive Raoult's law and discuss deviation from Raoult's law giving example.
b.	Explain buffer action and application of buffer in pharmaceutical and biological system.
c.	Classify complex compounds. Discuss chelates and cyclodextrin complexes with its application in pharmacy.

SECTION C

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

a.	Discuss diffusion mechanism in biological system with examples.
b.	Discuss various method of analysis of complexation.
c.	What are different methods of determining surface tension? Discuss construction, working principle of capillary rise method.
d.	Classify surface active agents. Discuss application of surface active agents in pharmaceutical system.
e.	How will you determine optical activity? Explain.
f.	Define Nernst potential and Zeta potential. Discuss the electrical properties at the interface.
g.	What are buffered isotonic solution? Write different method of adjusting tonicity of solution.

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