



Paper id: 252827

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Subject Code: BP302T

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BPHARM
(SEM III) THEORY EXAMINATION 2024-25
PHYSICAL PHARMACEUTICS I

TIME: 3 HRS**M.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 nernst potential and zeta potential.
b.	What do you mean by aerosol?
c.	Define dielectric constant.
d.	Define critical solution temperature.
e.	Define solvation and association.
f.	Give ideal gas equation.
g.	Define the term buffer capacity
h.	What do you mean by chelated compounds?
i.	Give a note on HLB scale.
j.	Explain the term vapor pressure.

SECTION B

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

a.	What do you understand from Raoult's law? Give the derivation with examples.
b.	Classify surface active pharmaceutical system. Derive the equation for spreading coefficient and surface free energy.
c.	Explain tonicity. Describe various methods of adjusting tonicity and pH.

SECTION C

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

a.	Discuss the methods used for the determination of surface and interfacial tension.
b.	Explain buffer equation and their application in pharmaceutical and biological system.
c.	Classify complexation and give their applications.
d.	Explain the principle and working of polarimeter.
e.	Explain Refractive index by Snell's law. Explain the working of Abbes Refractometer and its application.
f.	Differentiate between solid-crystalline and amorphous state.
g.	Discuss distribution law along with its application.