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BPHARM
(SEM IV) THEORY EXAMINATION 2021-22
PHYSICAL PHARMACEUTICS II – THEORY

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

- Attempt all Sections and Assume any missing data.
- Appropriate marks are allotted to each question, answer accordingly.

SECTION-A

Q.1	Attempt All of the following Questions in brief	Marks(10X2=20)
a.	Define the term Micro-emulsion.	
b.	What do you understand by the term peptization?	
c.	Mention two examples of cationic and non-ionic surfactant.	
d.	Differentiate between Martin and projected diameter.	
e.	Explain the term kinematic viscosity.	
f.	What is deflocculated suspension?	
g.	Give applications of plug flow in formulation.	
h.	Discuss the term expiry date and half-life of a drug.	
i.	Give two applications of thixotropy in formulation.	
j.	Give Heckel Equation and its importance.	

SECTION-B

Q.2	Attempt ANY TWO of the following Questions	Marks(2X10=20)
a.	Explain in detail the methods for determining particle size by different methods and its application in Pharmaceuticals.	
b.	Explain the non-Newtonian fluids on the basis of rheogram, molecular mechanism, mathematical equation and suitable example.	
c.	Define first and second order reactions. Give equations for determining shelf life and half-life for the same.	

SECTION-C

Q.3	Attempt ANY FIVE of the following Questions	Marks (5X7=35)
a.	Explain the derive properties of powders.	
b.	Explain the working principle of Anderson apparatus with the help of a labeled diagram.	
c.	Write about the kinetic & electrical properties of colloidal dispersion.	
d.	Write in detail about Particle size distribution with reference to mean particle size calculation.	
e.	Enumerate rheological properties of emulsions and emulsion formulations by HLB method.	
f.	Describe Plastic, elastic deformation and Heckle equation.	
g.	What are formulation of flocculated and deflocculated suspensions. Explain	