



Graphic Era
HILL UNIVERSITY
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GEHU/04M/9.1.3

Sessional I (Even) Semester Examination, March 2025

Roll no.....

Name of the Course and semester: B.Pharm IV
Name of the Paper: Physical Pharmaceutics-II
Paper Code: BP 403 T
Time: 1.5-hour

Maximum Marks: 30

Note:

- (i) This question paper contains three sections.
- (ii) All the questions are compulsory.

Section-A

Q1. Multiple Choice Questions – Attempt all questions

(10 X 1 = 10 Marks)

- i. In electrophoresis, if particles move towards cathode then the particles possess: (CO1)
 - a. Positive charge
 - b. Negative charge
 - c. Neutral
 - d. Bipolar
- ii. Diffusion is governed by which law (CO1)
 - a. Newton's law
 - b. Fick's first law
 - c. Faraday
 - d. None of the above
- iii. In colloidal system, dispersed phase having spherical shape show.... viscosity. (CO1)
 - a. high
 - b. low
 - c. first decrease then increase
 - d. first increase then decrease.
- iv. Protective action of colloids is quantitatively measured by : (CO1)
 - a. tyndall number
 - b. gold number
 - c. brownian number
 - d. zeta number
- v. The phenomenon of light scattering by colloidal particles is known as (CO1)
 - a. Reflection
 - b. Refraction
 - c. Tyndall effect
 - d. Effect of light scattering

- vi. Ostwald viscometer is used to measure viscosity ofliquids. (CO2)
 - a. Newtonian
 - b. Non-newtonian
 - c. Dilatant
 - d. None
- vii. Flow properties if liquid are related to : (CO2)
 - a. Viscosity
 - b. Surface tension
 - c. Interfacial tension
 - d. Force of cohesion
- viii. Elastic modulus is the ratio of..... (CO2)
 - a. Plasticity/elasticity
 - b. Stress/strain
 - c. Mobility/fluidity
 - d. Force/area
- ix. The thixotrophy is based on the phenomenon of interaction. (CO2)
 - a. Surface – Surface
 - b. Charge – charge
 - c. particle-particle
 - d. surface-charge
- x. . The phenomenon in which sol state transforms to a gel state more readily is .. (CO2)
 - a. Thixotrophy
 - b. Dilatant flow
 - c. colloids
 - d. Rheopexy

Section B

Q. 2 Short Questions: Attempt any two questions (2X 5 = 10 Marks)

- a. How the addition of electrolytes in colloidal system effects its efficacy. (CO-1)
- b. Classify colloidal system and define with example. (CO1)
- c. Describe mechanism of thixotrophy with the help of graphical representation, (CO-2)

Section C

Q. 3 Long questions: Attempt any one question (1X10= 10 Marks)

- a. Elaborate the optical, kinetic and electrical properties of colloidal system . (CO1)
- b.Explain difference between Newtonian and Non-Newtonian system. (CO2)