

[Total No. of Questions - 13] [Total No. of Printed Pages - 2]

DEC-23-0076

BP-403 T (Physical Pharmaceutics-II)

B.Pharm-4th (PCI)

Time : 3 Hours

Max. Marks : 75

Note: The question paper contains three sections in all, Section A, B and C. In Section A, student has to attempt all questions. From Section B students has to attempt any two questions and from section C students has to attempt any seven questions.

Section-A

Short Answer (Compulsory)

1. Attempt the following questions: (10×2=20)

- Define shelf life.
- Define porosity. How is it determined?
- Give the relationship between Brownian movement of particles and their sedimentation.
- Define the term 'Degree of flocculation'.
- What are structured vehicles w.r.t formulation of suspensions?
- Explain 'Rheopexy' phenomenon.
- Draw rheogram to show the effect of rate of share on the viscosity of dilatant materials.
- Describe the term 'Electrophoresis'.
- Mention the advantages of ICH guidelines.
- Define Schulze rule with its applications.

2

SECTION-B

Long Answer (Any Two)

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(2×10=20)

- Define and classify different types of colloids with their salient features. Describe their optical properties.
- With a neat labelled diagram, describe the Principle and working of cup and bob rotational type viscometer.
- Describe Andreasen pipette method for particle size determination with the help of a labelled diagram.

SECTION-C

(7×5=35)

Short Note Answer (Any Seven)

- Enlist and explain different effects observed on mixing different types of colloids.
- Differentiate between flocculated and deflocculated suspensions.
- Describe in detail about any two theories of emulsification.
- How is thixotropy related to plastic flow? Explain.
- What are the limitations of accelerated stability studies?
- Explain adsorption method for determining surface area of a powder.
- Compare between first and pseudo first order reaction with suitable examples.
- Describe different routes by which chemical degradation of pharmaceuticals is possible.
- Describe the experimental method to determine the angle of repose of granules.

