IMPORTANT QUESTIONS

For

B. Pharmacy Second Year II-Semester

Subject: Physical Pharmacy-II

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UNIT-I

Section-I: *Very Short Answer Questions.*

1. Define Colloids. Give few examples.
2. Differentiate between Lyophilic and Lyophobic colloids.
3. Classify Colloids with example.
4. What is importance of Gold number in Colloid?

Section-II: *Short Answer Questions.*

1. Explain the effect of electrolytes on lyophilic colloids.
2. Explain the effect of electrolytes on lyophobic colloids.
3. Write the preparation methods for colloids.
4. Describe Kinetic and Electrical properties of colloids.

Section-III: *Long Answer Questions*

1. Explain different optical properties of colloids.
2. Write in detail about
   a) Coacervation
   b) Peptization
   c) Protective Action

UNIT-II

Section-I: *Very Short Answer Questions.*

1. What is Newtonion flow? Give Examples.
2. What is importance of Heckle Plots?
3. What is thixotrophy? Explain with examples.
4. Classify non- Newtonion system with examples.
5. What is specific viscosity and mention its importance.

Section-II: *Short Answer Questions.*

1. Describe the stress and strain relationship in solid deformation.
2. Explain thixotrophy with the Rheograms.
3. Explain Plastics and elastics deformation of solids during compression.
4. Explain in detail about:
   i) Dilatant
   ii) Pseudo plastics

iii) Plastic Flow

Section-III: *Long Answer Questions*

1. Write the principle and working of capillary, falling sphere and rotational viscometer.

UNIT-III

Section-I: *Very Short Answer Questions*

1. What is sedimentation and degree of flocculation?
2. Write the factors influencing particle settling in suspension.
3. What is Ostwald ripening in suspensions?
4. What is multiple emulsions.
5. What is micro emulsion and mention its advantages.

Section-II: *Short Answer Questions.*

1. Explain the theories of emulsification.
2. Describe the interfacial properties of suspended particles
3. Write the formulation of flocculated and deflocculated suspension.
4. Explain the formulation of emulsion by HLB method.

Section-III: *Long Answer Questions*

1. Write about the
   i) Stability of emulsion
   ii) Preservation of emulsion

UNIT-IV

Section-I: *Very Short Answer Questions*

1. What is Bulk density? How is it useful in pharmacy.
2. What is angle of Repose and mention its significance
3. Define Porosity. Write its application in pharmacy.

Section-II: *Short Answer Questions.*

1. Explain the procedure to determine the particle size by conductivity.
2. Explain various approaches to determine particle number.
3. Explain the procedure to determine particle size by microscopy.
4. What is porosity and mention th significance of Heckle Plots
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Section-III: *Long Answer Questions*

1. Explain derived properties of powders and approaches to determine the flow properties of powders.
2. Explain different methods to determine the surface area of pharmaceutical powders.

UNIT-V

Section-I: *Very Short Answer Questions*

1. What are the definitions and equations for half-life and shelf life.
2. List the physical factors affecting degradation of drug product.
3. Write the preventive measures for photolytic degradation.
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Section-II: *Short Answer Questions.*

1. Write the preventive measures for chemical degradation of drug product.
2. Explain the methods to determine order of reactions.

Section-III: *Long Answer Questions*

1. Explain the accelerated stability studies along with determination of expiry date.
2. Describe the factors affecting stability of drug product.