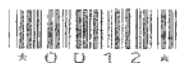


B. Pharm. Third Semester
35149 : Physical Pharmaceutics - I : T-3.1

P. Pages : 1

Time : Three Hours



AU - 0664

Max. Marks : 60

- Notes : 1. All question carry equal marks.
 2. Answer **any five** questions.

- | | | | |
|----|----|--|----|
| 1. | a) | State second law of thermodynamics with its equation. | 6 |
| | b) | Define any three . | 6 |
| | | 1) Isothermal process. | |
| | | 2) Efficiency of Engine. | |
| | | 3) Open system. | |
| | | 4) Reversible process. | |
| | | 5) Closed system. | |
| 2. | | Explain theory of sedimentation. Which are the different sedimentation parameters? Add a note on wetting of particles. | 12 |
| 3. | | Discuss Accelerated stability analysis with equations. Add a note on Rate and order of reactions. | 12 |
| 4. | a) | Classify different colloidal systems with examples. | 6 |
| | b) | Discuss optical properties of colloids. | 6 |
| 5. | a) | Define solubility. Give classification of solvents with suitable example. | 6 |
| | b) | Describe various factors affecting solubility of drug in solvent. | 6 |
| 6. | | Write the difference between amorphous and crystalline solids. Add a note on X-Ray Crystallography. | 12 |
| 7. | | Write a note on any two . | 12 |
| | a) | Phase equilibria and phase rule. | |
| | b) | Solubility of gases in liquids. | |
| | c) | Controlled flocculation. | |
| | d) | Stability of emulsion. | |
