

35008 : Physical Pharmacy : II.T.I

P. Pages : 1

Time : Three Hours

**AW - 2263**

Max. Marks : 80

- Notes :
1. All question carry equal marks.
 2. Answer **any eight** questions.
 3. Illustrate your answer necessary with the help of neat sketches.
 4. Use of pen Blue/Black ink/refill only for writing the answer book.

1. Describe various binding forces between molecules. Add a note on polymorphism. **10**
2. State & explain first law of thermodynamics & add a note on work of expansion at constant pressure. **10**
3. What do you mean by complete & partial miscibility? What are the factors affecting mutual solubility of partially miscible liquids in details. **10**
4. a) Discuss steady state of diffusion. **5**
b) Define rate, order & molecularity of reaction & describe first order reaction in details. **5**
5. a) Discuss HLB classification of surfactants. **5**
b) Write in details about wetting and detergency. **5**
6. Describe Kinetic properties of colloids in details. **10**
7. Define emulsions, describe their types & write the theories of emulsification. **10**
8. What do you mean by micromeritics? Write about the methods of determination of particle size. **10**
9. Describe the different types of viscometers in details. **10**
10. Write notes on **any two**. **10**
 - a) Emulsion.
 - b) Cyclodextrin complexes.
 - c) Plasma protein binding.
