

P. Pages : 1

Time : Three Hours



AW - 2301

Max. Marks : 60

- Notes :
1. All question carry equal marks.
 2. Answer **any five** questions.
 3. Illustrate your answer necessary with the help of neat sketches.

1. Define Surfactants, classify them & discuss HLB scale in details. 12
2. What are the methods of determination of surface area of particles, discuss in details. 12
3. a) Write about densities of powders. 6
b) Define thixotropy & Write the importance of thixotropy in formulations. 6
4. Write Fick's second law of diffusion & describe steady state of diffusion. 12
5. Describe various types of viscometers in details. 12
6. Classify complexes & discuss metal complexes in details. 12
7. Write short notes **any two**. 12
 - a) Bulges & Spurs.
 - b) Protein Binding.
 - c) Flow properties of powders.
 - d) Spreading coefficient.
