

## PHYSICAL PHARMACY – II LAB

### List of Experiments

1. Determination of bulk density, true density and percentage of porosity.
2. Effect of particle size and effect of glidant on angle of repose.
3. Microscopic size analysis, plotting of the graphs, calculation of geometric mean, diameter etc.
4. Determination of particle size by Andreasen pipette.
5. Determination of CMC of a surfactant.
6. Adsorption Isotherm constructions.
7. Partition coefficient determination.
8. Determination of sedimentation volume and degree of flocculation.
9. Determination of order of reaction – Zero order.
10. Determination of order of reaction – First order.
11. Determination of Second order reaction rate constant.
12. Effect of temperature on solubility of solid in liquid.
13. Effect of addition of Salt/pH/cosolvent on the solubility
14. Surface tension determination using Stalagmometer.
15. HLB value estimation of surfactants.
16. Viscosity by Ostwald Viscometer, Brookfield Viscometer.
17. Preparation of Multiple emulsions - Demonstration.
18. Preparation of Micro emulsion - Demonstration.
19. Determination of Zeta potential - Demonstration.
20. Determination of granular density.
21. Preparation of emulsion, identification and evaluation.

### ADDITIONAL EXPERIMENTS

22. To determine the particle size distribution of powder by Sieving method.
23. To determine the shelf life of aspirin solution using accelerated stability studies.