

**Second B.Pharm (Ayurveda) Degree Examinations October 2017**  
**Physical Pharmacy**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all questions.

**Essays:**

**(2x10=20)**

1. Define rheology. Explain the construction, principle and working of any two viscometers
2. Explain electrical properties of colloids

**Answer briefly:**

**(10x5=50)**

3. Noyes Whitney equation governing rate of dissolution
4. Creaming of emulsions
5. Explain Freundlich adsorption isotherm and its application
6. Andreasen pipette
7. HLB scale
8. Solubilisation
9. Classify colloids
10. State Fick's first law of diffusion
11. Adsorption isotherms
12. Accelerated stability studies

**Short notes:**

**( 10x3=30)**

13. Plastic flow of fluids
14. Suspending agents
15. Classify surfactants based on their applications
16. Method to determine particle volume of powders
17. Application of polymers
18. Any one method to determine surface tension
19. Kinetics of zero order reaction
20. Factors affecting solubility of gases in liquids
21. Lyophobic colloids
22. Discuss methods to stabilize drugs from hydrolytic degradation

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