

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM**  
(Deemed to be University)

**B.PHARM. DEGREE EXAMINATION – August 2018**  
Second Year

**PHYSICAL PHARMACEUTICS**

Time : Three hours

Maximum: 70 marks

I. Write essays on any **TWO** questions: (2 x 15 = 30)

1. a) Discuss the properties of Association of colloids.  
b) Explain the stabilization of Lyophobic colloids.
2. a) Write a short note on Electrical properties of interfaces.  
b) Explain what are the surface active agents? Explain their applications in pharmacy.
3. Explain the Non-Newtonian types of flows in pharmacy with suitable examples.

II. Write short essays on any **SIX** questions: (6 x 5 = 30)

4. Explain in brief the solubilization to enhance the solubility of drug.
5. Identification test for emulsion.
6. How do you determine the surface tension by Dunony Ring method?
7. Coulter – Counter method.
8. Write a short note on single point viscometer.
9. Detail note on drug complexes.
10. Adiabatic and reversible process in thermodynamics.
11. How do you determine the order of reaction by subtraction and half-life method?

III. Write short notes on any **FIVE** questions: (5 x 2 = 10)

12. Wetting agent.
13. Zero order reaction.
14. Rheopexy.
15. Complexation.
16. Refractive index.
17. Thermodynamics.

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