

Code No: B132103

**R13**
**SET - 1**
**II B. Pharmacy I Semester Supplementary Examinations, May - 2019**
**PHYSICAL PHARMACY-II**

Time: 3 hours

Max. Marks: 70

 Note: 1. Question paper consists of two parts (**Part-A** and **Part-B**)

 2. Answering the question in **Part-A** is Compulsory

 3. Answer any **THREE** Questions from **Part-B**
**PART -A**

1. a) State and explain Ficks first law. (4M)
- b) Explain hydrolytic degradation of compounds and preventive measures. (4M)
- c) Describe angle of repose method to determine flow property of powder. (4M)
- d) Define the terms surface tension, HLB, micellar solubilization (3M)
- e) Write a note on non Newtonian fluids. (3M)
- f) Describe any two methods to prepare lyophobic colloids. (4M)

**PART -B**

2. a) Describe the factors influencing solubility of liquids in liquids. (8M)
- b) Explain the mechanism of distribution of solutes in immiscible solvents. (8M)
3. a) Derive an equation for first order rate constant and half life. (8M)
- b) Write a note on accelerated stability studies. (8M)
4. a) Describe any one method to determine surface tension of solution. (8M)
- b) Write a note surface free energy of liquid interfaces. (8M)
5. a) Explain one method to determine surface area of powders. (8M)
- b) Write a note on derived properties of powders. (8M)
6. a) Define viscosity and explain the factors influencing viscosity of system. (8M)
- b) Describe the method to measure thixotropic coefficient. (8M)
7. a) Define miscellar solubilization and describe the factors influencing miscellar solubilization. (8M)
- b) Explain any two optical properties of colloids. (8M)