

[Total No. of Questions - 5] [Total No. of Printed Pages - 2]  
(2066)

16371(J) 5-16

**B. Pharmacy 4th Semester Examination**

**Physical Pharmacy-II (NS)**

**BP-243**

**Time : 3 Hours**

**Max. Marks : 70**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt any two questions from Section A and any eight-questions from Section B. Section C is compulsory.

**SECTION - A**

1. Define surface and interfacial tensions. Discuss methods for measurement of surface and interfacial tension.
2. Discuss thixotropy and thixotropic system in formulation..
3. Describe the solubilisation, detergency and electrical properties of interface. (10×2=20)

**SECTION - B**

4. (a) Define protective colloid and write the electric properties of colloids.  
(b) Discuss Interfacial properties of suspended particles.  
(c) Write theory of Brownian movement.  
(d) Write the types of Emulsions.  
(e) Write the methods for measurement of particle volume.  
(f) Discuss the wetting of particles.

2

16371

- (g) Describe the significance of protein binding.
- (h) Enumerate the derived properties of powder.
- (i) Discuss kinematic viscosity
- (j) Discuss the effect of temperature on viscosity.

(8×5=40)

**SECTION - C**

5. (a) Describe the settling in suspensions.  
(b) Enumerate sedimentation parameters.  
(c) Define Specific surface.  
(d) Enumerate the Flow properties of powder.  
(e) Describe Zeta potential and its application. (5×2=10)

[P.T.O.]