

II B.Pharmacy I Semester Supplementary Examinations, Oct/Nov - 2017
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**
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PART -A

1. a) Write a note on COLLOIDS. (3M)
- b) Explain the influence of dielectric constant on rate of reaction. (4M)
- c) Define and classify surface active agents with examples. (4M)
- d) Write a note on Sieving technique for size analysis of powders. (4M)
- e) Write a note on Newtonian systems. (3M)
- f) Give a note on factors effecting solubilization of drugs. (4M)

PART -B

2. a) Discuss the various factors effecting solubility of gases in liquids. (8M)
- b) State and explain Fick's first and second law of diffusion. (8M)
3. a) Write various decomposition pathways of drugs. (8M)
- b) Give a note on various stability testing methods for a new drug as per ICH guidelines. (8M)
4. a) Explain about liquid interfaces. (8M)
- b) Write the methods for determination of surface tension. (8M)
5. a) What are the methods used for particle size determination? Discuss in detail about Optical microscopic technique for particle size analysis. (8M)
- b) Give an account on derived properties of powders. (8M)
6. a) Explain the mechanism of shear thickening and shear thinning systems and add a note on Thixotrophy. (8M)
- b) Write the principle, construction and working of any one viscometer useful in determination of newtonian flow. (8M)
7. a) Mention in detail about stability of lyophobic colloids. (8M)
- b) Explain about Micellar Solubilization. (8M)

