

Subject Code: B132201/R13

II B.Pharmacy II Semester Supplementary Examinations Nov. - 2016

PHARMACEUTICAL UNIT OPERATIONS-II

Time: 3 hours

Max. Marks: 70

Question Paper Consists of **Part-A** and **Part-B**
Answering the question in **Part-A** is Compulsory,
Three Questions should be answered from **Part-B**

PART-A

1. (a) Define conduction and convection with equations.
- (b) Define the following with equations
(i) Raoult's Law (ii) Relative volatility
- (c) What are the factors influencing evaporation?
- (d) Write a short note on mechanism of drying.
- (e) Write a short note on modes of size reduction with examples.
- (f) What do you mean by vortex? How is it prevented?

[3+3+4+4+4+4]

PART-B

2. (a) What is Conduction? Explain the Fourier's law of conduction for a cylindrical tube.
(b) Write a note on Tubular Heater. [10+6]
3. (a) Write the theory of evaporation.
(b) Explain in detail about climbing film and falling film Evaporators. [6+10]
4. (a) Write the working principles of large scale industrial simple distillation.
(b) Write the principle, construction and working of Flash Distillation. [8+8]
5. (a) Explain drying curves.
(b) Write in detail about principle, construction and working of Spray Dryer and freeze dryer. [4+12]
6. (a) What is Size reduction? Explain in detail about factors effecting size reduction.
(b) Explain the principle, construction, working and applications of Ball mill. [6+10]
7. (a) Write the principle, construction, working & uses of planetary mixer.
(b) Write working principle of colloid mill with pharmaceutical applications. [8+8]
