

B.PHARM.
(SEM IV) THEORY EXAMINATION 2018-19
PHARMACEUTICS-II (UNIT OPERATIONS)

Time: 3 Hours**Total Marks: 70****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

- 1. Attempt all questions in brief.** **2 x 7 = 14**
- a. Define various process variables.
 - b. Distinguish between Laminar and Turbulent flow.
 - c. What are various automated process control systems?
 - d. What is Centrifugal Effect or Relative Centrifugal effect?
 - e. Write about “standardization of cleaning”.
 - f. Write a short note on filter media.
 - g. What are psychometric Charts? Discuss their uses.

SECTION B

- 2. Attempt any three of the following:** **7 x 3 = 21**
- a. Explain flow level and their measurements.
 - b. Discuss in detail about rotary filter & edge filter and also describe the principle of centrifugation
 - c. Describe Principles and applications of refrigeration and air conditioning.
 - d. Write about mechanism of drying , rate of drying and time of drying calculations
 - e. What is Darcy’s law? Give an account of various factors affecting filtration.

SECTION C

- 3. Attempt any one part of the following:** **7 x 1 = 7**
- a) Briefly describe theory of filtration.
 - b) Explain the principle and working the drum dryers. Also mention advantages and disadvantages
- 4. Attempt any one part of the following:** **7 x 1 = 7**
- a) What is potable water? What are its quality requirements?
 - b) With the help of a suitable diagram, explain the working of a rotary drum filter.
- 5. Attempt any one part of the following:** **7 x 1 = 7**
- a) Explain the principles and applications of refrigeration and airconditioning
 - b) Explain the principles of centrifugation and ultracentrifugation.
- 6. Attempt any one part of the following:** **7 x 1 = 7**
- a) Explain the construction, working, merits and demerits of tray dryer.
 - b) Discuss applications, advantage and limitations of plastics.
- 7. Attempt any one part of the following:** **7 x 1 = 7**
- a) Describe in detail about raw water, soft water, purified water & water for injection.
 - b) Discuss the Industrial Hazards and Safety Precautions.