**Printed Pages: 02** **Subject Code:RPH302**

**Paper Id:** **150312** **Roll No:** | | | | | | | | | | |

**BPHARM**
**(SEM III) THEORY EXAMINATION 2018-19**
**PHARMACEUTICS II (UNIT OPERATIONS)**

***Time: 3 Hours*** ***Total Marks:70***

**Notes:** *Assume any Missing Data.*

## SECTION A

**1. Attempt all parts. All parts carry equal marks** **2x7=14**

- **a.** What are filter aids and their different examples of filter aids?
- **b.** Write the various processes involved in purification of water?
- **c.** What are psychometric charts?
- **d.** Define the process variables.
- **e.** Differentiate between dry and wet bulb temperature.
- **f.** Write down the different types of dryers?
- **g.** Discuss the mechanism of centrifugation?

## SECTION B

**2. Attempt any *three* of the following:** **7 x 3 = 21**

a. Write a note on filter press and rotary filter in detail with their advantages and disadvantages.
b. Give the classification of dryers? Discuss try dryers used in pharmaceutical industries in detail.
c. What are different possible industrial hazards? How they can be controlled in industry?
d. What are the different types of water system? Explain the quality requirement and process of distillation of water.
e. Write a note on refrigeration process.

## SECTION C

**3 Attempt any *one* part of the following:** **7 x 1 = 7**

a. Explain filtration process? Give their types and different mechanisms of filtration.
b. Explain rotatory drum filter with help of diagram.

**4 Attempt any *one* part of the following:** **7 x 1 = 7**

a. Write a note on moisture content and explain the various mechanisms involved in drying.
b. Give idea about the materials of construction with special reference to stainless steel.

**5 Attempt any *one* part of the following:** **7 x 1 = 7**

a. Discuss about the dehumidification equipments in detail.
b. Write the note on working, principles and applications of fluidized bed dryer methods.

**6 Attempt any *one* part of the following:** **7 x 1 = 7**

a. Write in brief for Accidental records.
b. What is the steady and unsteady state?

**7. Attempt any *one* part of the following:** **7 x 1 = 7**

a. What is centrifugation? Discuss super centrifuge in detail.
b. Explain principle and working of edge filter.