

(Following Paper ID and Roll No. to be filled in your
Answer Books)

Paper ID : 150412

Roll No.

B. PHARM.

Theory Examination (Semester-VI) 2015-16

PHARMACEUTICS-IV (UNIT OPERATIONS-II)

Time : 3 Hours

Max. Marks : 100

Note : Attempt all questions. All questions carry equal marks.

1. Attempt any two questions : (10×2=20)

- Define Mole volume, Mole fractions, Stoichiometry and Equilibrium state.
- What are primary and secondary quantities. Explain with suitable examples.
- Discuss the concept of energy balance and material balance in detail.

2. Attempt any two questions : (10×2=20)

- Define evaporation and discuss various factors affecting evaporation.
- Give neat and labeled diagram with working and pharmaceutical applications of film evaporators.
- Compare evaporation, distillation and drying process.

3. Attempt any two questions : (10×2=20)

- Explain Raoult's law and phase diagram.
- Discuss the principle, mechanism and application of flash distillation.
- Give method of distillation of alcohol from mixture of water and alcohol.

4. Attempt any two questions : (10×2=20)

- Classify different types of dryer used in pharma industry.
- Explain principle, working mechanism with diagram and application in tablet formulation of fluidized bed dryers.
- Give the rate of drying curve. Explain the terms EMC and CMC.

5. Write detailed note on any two : (10×2=20)

- (a) Automatic process control system.
- (b) Computer aided manufacturing (CAM).
- (c) Reactors for chemical reaction