

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – I • EXAMINATION – WINTER • 2014

Subject Code: 210005

Date: 06-01-2015

Subject Name: Pharmaceutics-I

Time: 10:30 am - 01:30 pm

Total Marks: 80

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Enumerate the factors affecting rate of filtration and discuss any three in detail **06**
(b) Enumerate the different types of industrial filters. Draw a labeled diagram of Rotary filter **05**
(c) Write a note of filter aids **05**
- Q.2** (a) Classify the different types of industrial centrifuge. Explain principal of sedimentation type centrifuge **06**
(b) Write a note on perforated basket centrifuge **05**
(c) List the applications of centrifugation in Pharmacy **05**
- Q.3** (a) Discuss the factors affecting evaporation **06**
(b) Explain the Dahrings rules and Raoult's Law **05**
(c) Discuss the climbing film evaporator with labeled diagram and application **05**
- Q.4** (a) Define volatility and relative volatility. Discuss vapor liquid equilibrium relationship. **06**
(b) Enumerate the types of distillation. Draw labeled diagram of molecular distillation. **05**
(c) Discuss the steam distillation with its application **05**
- Q.5** (a) Enumerate the factors affecting on selection of dryers. Explain drying rate curve **06**
(b) Explain the theory and mechanism of drying **05**
(c) Classify the dryers. Draw a labeled diagram of fluidized bed dryer and give its application **05**
- Q.6** (a) List the equipments used for humidification. Discuss any two methods for Determination of humidity **06**
(b) List the applications of humidity control in pharmaceutical industry **05**
(c) Discuss the refrigeration cycle **05**
- Q.7** (a) Write a note on Rotary Dryer **06**
(b) Write a note on dehumidification operation **05**
(c) Design of HVAC system **05**
