

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 Dahring's 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
