

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – I • EXAMINATION – WINTER 2013

Subject Code: 210005

Date: 03-01-2014

Subject Name: Pharmaceutics-I

Time: 02.30 pm - 05.30 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)	Explain the construction, working, advantages, disadvantages and application with labeled diagram of Plate and Frame Filter Press.	06
	(b)	Describe the theory of Centrifugation	05
	(c)	Describe compression refrigeration cycle with diagram.	05
Q.2	(a)	Define the terms: bound moisture, unbound moisture, EMC, CMC, Moisture content.	06
	(b)	Explain the construction & working of forced circular evaporator	05
	(c)	Describe rotary drum filter with diagram	05
Q.3	(a)	Write a note on HVAC system	06
	(b)	Discuss the various mechanisms of filtration process	05
	(c)	Explain the process of lyophilization.	05
Q.4	(a)	Define & differentiate the evaporation, drying & distillation with example	06
	(b)	Define the terms Humidity, Dew point, Humid volume, Humid heat and dry bulb temperature.	05
	(c)	Explain in brief rectification.	05
Q.5	(a)	Explain filter media, its ideal properties and factor affecting its selection. Give the examples of filter media.	06
	(b)	Describe the construction and working of a fluidized bed dryer	05
	(c)	Give the basic principle of air-conditioning.	05
Q. 6	(a)	Differentiate multiple effect & single effect evaporator.	06
	(b)	Describe mechanical hygrometers with diagram	05
	(c)	write a note on; Raoult's law	05
Q.7	(a)	Write a short note on spray dryer	06
	(b)	Explain with relevant procedure for the separation of an azeotropic mixture.	05
	(c)	Write a short note on falling film evaporator.	05
