Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – I • EXAMINATION – WINTER • 2015

Subject Code: 210005 Date: 11-01-2016

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)**	Explain the construction, working, advantages and disadvantages with labeled diagram of Filter equipment used in high content of solid in slurry.	**06**
	(b)	Discuss the factors affecting the process of filtration.	**05**
	(c)	Explain Plate and Frame filter press with labeled diagram.	**05**
Q.2	**(a)**	Derive equation for relative centrifugal force.	**06**
	(b)	Classify industrial centrifuges. Write the construction and working of a perforated basket centrifuge.	**05**
	(c)	Give the Difference between Filtration and centrifugation	**05**
Q.3	**(a)**	Discuss the factors affecting the process of evaporation.	**06**
	(b)	Discuss principle, advantages and disadvantages of film evaporators.	**05**
	(c)	Differentiate multiple effect & single effect evaporator.	**05**
Q.4	**(a)**	Describe compression refrigeration cycle with diagram.	**06**
	(b)	Define the terms: Humidity, Dew Point , Percentage Humidity, Relative Humidity and Humid Heat	**05**
	(c)	Describe mechanical hygrometers with diagram.	**05**
Q.5	**(a)**	Explain the drying rate curve.	**06**
	(b)	Describe fluidized bed dryer with diagram.	**05**
	(c)	Explain the process of freeze drying.	**05**
Q. 6	**(a)**	Explain the different types of Distillation column.	**06**
	(b)	Explain process of Distillation of immiscible liquids.	**05**
	(c)	How is steam distillation carried out?	**05**
Q.7	**(a)**	Choose the most suitable drying equipment for production of milk powder. Describe its principle & working with labeled diagram.	**06**
	(b)	Explain the construction and working of forced circulation evaporator with labeled diagram.	**05**
	(c)	Discuss Duhring's rule and Raoult's law.	**05**

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