Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

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

	•	Code: 2240001 Date: 05-01-2016	
Subject Name: Unit Operations-II Time: 02:30 pm - 05:30 pm Total Marks: 8 Instructions:		0	
	1.	Attempt any five questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Explain filter media, its ideal properties and factor affecting its selection. Give the examples of filter media.	06
	(b) (c)	Write working principle and application of perforated basket centrifuge. Explain in brief edge-filter.	05 05
Q.2	(a) (b) (c)	Describe theory of filtration. Explain cartridge filter with suitable diagram. Write a note on lyophilization.	06 05 05
Q.3	(a)	Draw schematic diagram of molecular distillation and discuss its application in pharma industry.	06
	(b) (c)	Define 'azeotropes'. Write a note on preparation of Absolute alcohol. Write a note on steam distillation.	05 05
Q.4	(a)	Define drying. Give the detailed classification of dryers. Give the neatly labeled diagram of spray dryer.	06
	(b) (c)	Describe the factors affecting evaporation. Write a note on microwave.	05 05
Q.5	(a) (b) (c)	Write a note on rectifying column. Explain Duhring's rule and Raoult's law. Draw a labeled diagram of triple effect evaporator.	06 05 05
Q. 6	(a) (b) (c)	Describe the method of drying rate calculation. Explain refrigeration cycles. Explain air conditioning.	06 05 05
Q.7	(a) (b) (c)	Write a note on HVAC system. Describe with suitable diagram falling film evaporator. Explain the psychometric chart.	06 05 05
