

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Pharm. - SEMESTER-1 • EXAMINATION – SUMMER -2018**

**Subject Code: 210005****Date: 01/05/2018****Subject Name: Pharmaceutics - I****Time: 02:30 PM TO 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.

<b>Q.1</b>	(a) Discuss rotary drum filter in detail.	<b>06</b>
	(b) What are the mechanisms of filtration? Discuss in detail.	<b>05</b>
	(c) Write a note on cartridge filters.	<b>05</b>
<b>Q.2</b>	(a) Discuss theory on centrifugal effect.	<b>06</b>
	(b) Write principle, construction and working of perforated basket centrifuge.	<b>05</b>
	(c) Differentiate filtration and centrifugation.	<b>05</b>
<b>Q.3</b>	(a) Write a note on filter aid.	<b>06</b>
	(b) Discuss the factors affecting evaporation.	<b>05</b>
	(c) Describe the multiple effect evaporators with labeled diagram.	<b>05</b>
<b>Q.4</b>	(a) Define fractionation and discuss the fractionating columns with diagram.	<b>06</b>
	(b) Give short note on azeotropic distillation with examples.	<b>05</b>
	(c) Discuss the molecular distillation in detail.	<b>05</b>
<b>Q.5</b>	(a) Write a note on theory and mechanisms on drying.	<b>06</b>
	(b) Give a note: Fluidized bed dryer.	<b>05</b>
	(c) Define the terms EMC, CMC, drying rate, moisture content and % LOD.	<b>05</b>
<b>Q. 6</b>	(a) Give note on compression refrigeration cycle with diagram.	<b>06</b>
	(b) Describe Wet bulb- Dry bulb method to determine humidity.	<b>05</b>
	(c) Give short note on Air Handling Unit.	<b>05</b>
<b>Q.7</b>	(a) Discuss the psychometric chart and its parameters.	<b>06</b>
	(b) Discuss the refrigeration cycle.	<b>05</b>
	(c) Write principle, working and merits-demerits on spray dryer.	<b>05</b>

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