

Seat No.: _____

Enrolment No. _____

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.

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