

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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|------------|-----|--|-----------|
| <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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