

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – I • EXAMINATION – SUMMER 2013

Subject Code: 210005

Date: 15-05-2013

Subject Name: Pharmaceutics I

Time: 02.30 pm - 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 the factors affecting the process of filtration. | 06 |
| | (b) Discuss the various mechanisms of filtration process. | 05 |
| | (c) Write the construction and working of a continuous horizontal centrifuge. | 05 |
| | | |
| Q.2 | (a) Explain the construction, working and application with labeled diagram of Plate and Frame Filter Press. | 06 |
| | (b) Explain the process of steam distillation and give its importance in pharmacy. | 05 |
| | (c) Write a short note on packed columns. | 05 |
| | | |
| Q.3 | (a) Describe the theory of centrifugation. | 06 |
| | (b) What are the filter aids? Give its importance in filtration process. | 05 |
| | (c) Write a note on metafilter. | 05 |
| | | |
| Q.4 | (a) Discuss the factors affecting the process of evaporation. | 06 |
| | (b) Describe with labeled diagram: falling film evaporator. | 05 |
| | (c) Classify Evaporators. Write a note on evaporating pan. | 05 |
| | | |
| Q.5 | (a) Explain the theory and process of drying. | 06 |
| | (b) Describe the construction and working of a fluidized bed dryer. | 05 |
| | (c) What are the pharmaceutical applications of drying? | 05 |
| | | |
| Q. 6 | (a) Write a note on HVAC system. | 06 |
| | (b) Explain the principle and working of air conditioner with labeled diagram. | 05 |
| | (c) Describe compression refrigeration cycle with diagram. | 05 |
| | | |
| Q.7 | (a) Write a note on azeotropic distillation process. | 06 |
| | (b) Discuss the various methods to measure humidity in brief. | 05 |
| | (c) Explain the process of freeze drying with its application. | 05 |
