

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM- SEM-I-EXAMINATION – JUNE 2012

Subject code: 210005

Date: 28/06/2012

Subject Name: Pharmaceutics-I

Time: 10:30 am – 01:30 pm

Total Marks: 80

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define filter medium, write its ideal properties and explain factors affecting selection of filter medium. **06**
- (b) Write a short note on filter aid. **05**
- (c) Explain construction and working of filter press. **05**
- Q.2** (a) Write working principle and application of perforated basket centrifuge. **06**
- (b) Define centrifugation and derive an equation for centrifugal effect. **05**
- (c) Explain drying rate curve with suitable example. **05**
- Q.3** (a) Write a short note on psychrometric chart. **06**
- (b) Discuss the applications of refrigeration in pharmacy. **05**
- (c) Explain in brief rectification. **05**
- Q.4** (a) Define distillation, compare distillation and evaporation and classify various types of evaporators. **06**
- (b) Describe in brief azeotropic distillation process. **05**
- (c) Write a short note on molecular distillation. **05**
- Q.5** (a) Explain factors affecting evaporation. **06**
- (b) Define drying, explain factors affecting selection of dryers. **05**
- (c) Explain principle and construction of spray dryer. **05**
- Q. 6** (a) Explain construction, working and principle of fluid bed dryer. **06**
- (b) Explain compression refrigeration cycle. **05**
- (c) Explain equation governing rate of filtration. **05**
- Q.7** (a) Define and explain following: (i) humid volume, (ii) dew point, (iii) wet bulb temperature. **06**
- (b) Discuss briefly the role of Duhring's rule and Raoult's law in determining BPR. **05**
- (c) Describe with suitable diagram falling film evaporator. **05**
