

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject code: 220002

Date: 13/06/2012

Subject Name: Pharmaceutics - II

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 size reduction. Write a note on mechanisms of size reduction. **6**
- (b) Write a detailed note on factors affecting size reduction. **5**
- (c) Write a note on fluid energy mill. **5**
- Q.2** (a) Explain the terms: **6**
- 1) Angle of repose  
2) Carr's index  
3) Hausner ratio
- (b) Classify the size separation methods and write a note on any one of them. **5**
- (c) Write about the applications of size separation in pharmacy. **5**
- Q.3** (a) Define mixing. Write the objectives of mixing. **6**
- (b) Write about the solid-solid mixing equipments. **5**
- (c) Write a note on propeller and turbine mixers. **5**
- Q.4** (a) Why the crystals are preferred? Write about the various types of crystals. **6**
- (b) Classify the crystallizers. Write a note on any one of them. **5**
- (c) Write a note on spherical crystallization. **5**
- Q.5** (a) Write about the various solvents used for extraction. **6**
- (b) Write a detailed note on percolation method of extraction. **5**
- (c) Enumerate the various applications of extraction in pharmacy. **5**
- Q.6** (a) What do you understand by compaction and compression? Write about the effect of compressional force on powders. **6**
- (b) Write about Hecker and Kawatika equations. **5**
- (c) Write about the methods for generating the nanoparticles. **5**
- Q.7** (a) Write a note on electrical and fire hazards. **6**
- (b) Write about the various techniques for the measurement of temperature. **5**
- (c) Write about the elements of automatic process control system. **5**

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