

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – III • EXAMINATION – SUMMER • 2014

Subject Code: 230002

Date: 05-06-2014

Subject Name: Pharmaceutical Engineering - II

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 importance of content uniformity in pharmaceutical products. | 06 |
| | (b) Define angle of repose. Explain the various methods for measurement of angle of repose. | 05 |
| | (c) Discuss the various elements of control chart. | 05 |
| Q.2 | (a) Discuss the factors affecting pelletization in extrusion spheronization process. | 06 |
| | (b) What are fundamental properties of the super critical fluids | 05 |
| | (c) Explain various methods for improvement of powder flow property. | 05 |
| Q.3 | (a) Discuss the factors affecting the flow properties of powders. | 06 |
| | (b) Write a note on use of MCC in pelletization. | 05 |
| | (c) Write a note on GAS (gas anti-solvent) technology. | 05 |
| Q.4 | (a) Give the significance of SCF in particle engineering and explain RESS (rapid expansion of supercritical solution) process. | 06 |
| | (b) Write a note on polymers used in hot melt extrusion spheronization. | 05 |
| | (c) What are the factors affecting content uniformity? | 05 |
| Q.5 | (a) What is control chart? How to establish limits of it? Discuss its application in Pharmacy? | 06 |
| | (b) Explain cryopelletization. | 05 |
| | (c) What is the significance for determination of carr's index? How is it measured? | 05 |
| Q. 6 | (a) Explain the application of supercritical fluids in pharmacy. | 06 |
| | (b) Write a note on interpretation of control charts. | 05 |
| | (c) Write a note on sampling techniques. | 05 |
| Q.7 | (a) Explain the test of "uniformity of content of single dose preparations" as per IP 2007. | 06 |
| | (b) Give the advantages of pellets as compared to other dosage form. | 05 |
| | (c) What are different types of control charts? | 05 |
