

GUJARAT TECHNOLOGICAL UNIVERSITY**BPHARM – SEMESTER II • EXAMINATION – WINTER - 2013****Subject code: 220002****Date: 18-12-2013****Subject Name: Pharmaceutics-II****Time: 10:30 am to 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.

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| Q.1 | (a) | Discuss the objective of size-reduction. Also discuss in brief factors affecting size reduction. | 06 |
| | (b) | Describe mechanisms of size reduction. | 05 |
| | (c) | With diagram describe working and applications of microniser. | 05 |
| Q.2 | (a) | Describe with clearly labeled diagram the working of Swenson-Walker Crystallizers. | 06 |
| | (b) | Write a note on crystal size control. | 05 |
| | (c) | Discuss limitations of Miers theory of Supersaturation. | 05 |
| Q.3 | (a) | Discuss with labeled diagram working and applications of planetary mixer. | 06 |
| | (b) | Describe mechanisms of liquid mixing. | 05 |
| | (c) | Describe types of mixtures. | 05 |
| Q.4 | (a) | Discuss theory of Extraction of drugs. | 06 |
| | (b) | Write a note on solvents for drug extraction. | 05 |
| | (c) | Write a note on continuous extraction. | 05 |
| Q.5 | (a) | Write a note on standards for powders. | 06 |
| | (b) | Discuss cyclone separators and elutriation methods. | 05 |
| | (c) | Describe standards for Sieves. | 05 |
| Q. 6 | (a) | What are the basic elements of automatic control systems? With a simple schematic diagram explain simple process control system. | 06 |
| | (b) | Describe various pressure and vacuum measuring systems with diagrams. | 05 |
| | (c) | Name various temperature measuring devices. Discuss briefly any two in details. | 05 |
| Q. 7 | (a) | Discuss various safety related issues in pharmaceutical plants. | 06 |
| | (b) | Write a note on fire extinguishers. | 05 |
| | (c) | Explain terms 'Compaction' and 'Compression'. Describe the effect of Compression on a bed of powders. | 05 |
