

**GUJARAT TECHNOLOGICAL UNIVERSITY****B.Ph. – SEMESTER II– • EXAMINATION – WINTER • 2015****Subject Code: 220002****Date: 08-12-2015****Subject Name: PHARMACEUTICS II****Time: 2.30 pm – 5.30 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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|-------------|---|-----------|
| <b>Q.1</b>  | (a) Write a note on theory of size reduction.                             | <b>06</b> |
|             | (b) Which are the factors affecting size reduction?                       | <b>05</b> |
|             | (c) Discuss: Ball mill with labeled diagram.                              | <b>05</b> |
| <b>Q.2</b>  | (a) Write a note on principles of size separation.                        | <b>06</b> |
|             | (b) Which are the factors affecting size separation?                      | <b>05</b> |
|             | (c) Discuss: Elutriation type separators with labeled diagram.            | <b>05</b> |
| <b>Q.3</b>  | (a) Which are the different methods of generating nanoparticles?          | <b>06</b> |
|             | (b) Write a brief note on fluid energy mill.                              | <b>05</b> |
|             | (c) What are the pharmaceutical applications of size separation?          | <b>05</b> |
| <b>Q.4</b>  | (a) Write a note on theory of mixing.                                     | <b>06</b> |
|             | (b) What is importance content uniformity in solid dosage form?           | <b>05</b> |
|             | (c) Classify different mixers and discuss any one.                        | <b>05</b> |
| <b>Q.5</b>  | (a) Write in brief: factors affecting crystallization process.            | <b>06</b> |
|             | (b) Discuss Swenson walker crystallizer.                                  | <b>05</b> |
|             | (c) Discuss about polymorphism and amorphous forms of drugs.              | <b>05</b> |
| <b>Q. 6</b> | (a) Write a note on soxhlet extraction apparatus.                         | <b>06</b> |
|             | (b) Discuss: solvents used in extraction.                                 | <b>05</b> |
|             | (c) Give application of compaction and compression in tablet dosage form. | <b>05</b> |
| <b>Q.7</b>  | (a) Discuss: chemical hazards in pharmaceutical industry.                 | <b>06</b> |
|             | (b) How waste water treatment is done in pharmaceutical industry?         | <b>05</b> |
|             | (c) Write in brief on automated process control system.                   | <b>05</b> |

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