

GUJARAT TECHNOLOGICAL UNIVERSITY**BPHARM – SEMESTER II • EXAMINATION – WINTER • 2014****Subject code: 220002****Date: 28-11-2014****Subject Name: Pharmaceutics-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) Describe Mier's theory for supersaturation. What are its limitations? | 06 |
| | (b) Elaborate the elements of automatic process control system. | 05 |
| | (c) Describe pharmacopoeial standards for sieves. | 05 |
| Q.2 | (a) Describe the construction, working, and uses of Ball mill with a suitable diagram. | 06 |
| | (b) What is the Significance of angle of repose, Carr's Index and Hausner ratio? | 05 |
| | (c) Differentiate between: Elutriation and Sedimentation. | 05 |
| Q.3 | (a) Justify the following statements- | 06 |
| | i The greatest importance in the operation of Ball mill is speed of Rotation. | |
| | ii Fluid energy mill is useful for thermo labile materials. | |
| | (b) Describe the methods of waste water treatment. | 05 |
| | (c) Explain the terms- compaction and compression. | 05 |
| Q.4 | (a) Explain the principle and working of Cyclone separator with diagram. | 06 |
| | (b) Write about the various solvents used for extraction. | 05 |
| | (c) Explain the Kawakita and Hecker equations and explain their uses. | 05 |
| Q.5 | (a) Define mixing. Explain positive mixtures, negative mixtures and neutral mixtures. | 06 |
| | (b) Describe colloid mill with working diagram. | 05 |
| | (c) Write a note on spherical crystallization. | 05 |
| Q. 6 | (a) Describe Swenson- Walker crystallizer with suitable diagram. | 06 |
| | (b) Write a note on Marc and Manstrum. | 05 |
| | (c) Define Polymorphism and explain its significance. | 05 |
| Q. 7 | (a) Explain the construction, working and uses of planetary motion mixer. | 06 |
| | (b) Differentiate between: Maceration and Percolation. | 05 |
| | (c) Describe the factors affecting size reduction. | 05 |
