

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm - SEMESTER- II • EXAMINATION – SUMMER 2017

Subject Code: 220002

Date: 13/06/2017

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.

- Q1 (a) What is the objective of size reduction? Describe the factors influencing it. (6)
(b) Compare ball mill and fluid energy mill. (5)
(c) How are nanoparticles generated? Explain any one method. (5)
- Q2 (a) Explain in detail working of cyclone separator. (6)
(b) What is the application of size separation in Pharmacy? How the sieves numbered and what are the approx. screening area? (5)
(c) Explain in detail working of mechanical sieve shaker. (5)
- Q3 (a) Powder A-125Kg., Powder B-75 Kg., Powder C -50 Kg are to be uniformly mixed. Justify your selection of mixer and describe. (6)
(b) Compare propeller and turbine mixers. (5)
(c) Mr X. wants to prepare 100kg of paste mass. Direct him as to which equipment should be used and explain the equipment in detail. (5)
- Q4 (a) Explain theory of supersaturation. (6)
(b) What is the importance of crystal structure in pharmacy? Explain different types of crystal forms. (5)
(c) Explain in detail Swenson-Walker crystallizer. (5)
- Q5 (a) What is extraction? Explain different methods of extraction in brief. (6)
(b) Explain in detail all different types of percolation. (5)
(c) Explain in detail liquid-liquid type of extraction and Podbielniak extractor in detail. (5)
- Q6 (a) What is compaction, compression and consolidation? Explain in detail different events of compression. (6)
(b) Which are the properties of tablets influenced by compression and explain how? (5)
(c) Explain Heckel, Kawakita and Adams equations with graphs and compare them. (5)

- Q7 (a) Classify different types of flow meters with chart and compare orifice and venturi meters. (6)
- (b) How are mechanical hazards caused? What steps will you take to prevent them? (5)
- (c) What are chemical hazards? How can you prevent them? What would be the first aid treatment when a person faints due to chemical vapours? (5)
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