Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Ph.-SEMESTER–II • EXAMINATION – SUMMER-2018

Subject Code: 220002 **Date: 19/05/2018**

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.**

Q.1	(a)	Explain principle, working, merits and demerits of Ball Mill with label diagram.	06
	(b)	Write note on factor influencing size reduction.	05
	(c)	Write a detail note on fluid energy mill.	05
Q.2	(a)	Differentiate between Elutriation and Sedimentation. Describe principle, construction and working of Elutriation tank.	06
	(b)	Describe various mechanisms for Size-Separation.	05
	(c)	Write the application of size separation in pharmacy	05
Q.3	(a)	Define mixing. Discuss about different types of mixtures with suitable examples.	06
	(b)	With a neat and labelled diagram explain the principle and working of Planatory Mixer.	05
	(c)	Describe in detail factors affecting mixing process.	05
Q.4	(a)	Discuss the Mier's supersaturation theory of crystallization. What are its limitations?	06
	(b)	Explain the construction and working of Swenson Walker crystallizer with diagram.	05
	(c)	Explain Caking and prevention of caking.	05
Q.5	(a)	With a neat and labeled diagram describe the Soxhlet extractor for continuous hot extraction.	06
	(b)	Discuss difference between Maceration & Percolation.	05
	(c)	Write a short note on Solvents of extraction process.	05
Q. 6	(a)	Describe Hecker and Kawakita equations	06
	(b)	Write the objective and basic element of Process control system.	05
	(c)	Give advantages of automated process control system.	05
Q.7	(a)	Describe methods for waste water treatment in pharmaceutical industry.	06
	(b)	Discuss about chemical hazards and its prevention.	05
	(c)	Write short notes on mechanical hazards.	05

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