Seat No.:	Enrolment No.	
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GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm -SEMESTER-III • EXAMINATION - SUMMER-2016

Subject Code: 930108 Date: 27/05/2016

Subject Name: Industrial Pharmacy-V

Time: 2:30 PM to 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.

Q.1	(a)	Define extrusion. Describe type of extruders used in pharmaceutical industry.	06
	(b)	Describe advantages and objectives of prefilled syringes.	05
	(c)	Describe working principle of blow fill and seal equipment with	05
	(0)	schematic diagram.	
((a)	Enlist types of FBD. Explain bottom spray FBD.	06
	(b)	Describe parameters to be controlled for Lyophillization process.	05
	(c)	Write a note on laser printing for pharmaceutical identification.	05
Q.3	(a)	Describe steps of electrostatic coating process.	06
	(b)	Enumerate formulation variables of spheronization. Discuss characterization parameters of pellets.	05
	(c)	Describe bottom up techniques for preparation of nanoparticles.	05
(1	(a)	Differentiate Liposomes and Niosomes. Describe pharmaceutical	06
		applications of Niosomes.	
	(b)	Enlist type of polymers used in mucoadhesive drug delivery	05
		systems. Explain wash out tests for mucoadhesion study.	
	(c)	Discuss key parameters that influence the design of osmotic drug	05
		delivery systems.	
Q.5	(a)	Enlist methods used for preparation of Liposome. Explain solvent	06
	(1.)	injection method in brief.	0.5
	(b)	Write a note ALU-ALU packaging.	05 05
	(c)	"Good engineering practices are necessary in pharmaceutical Industy"-Justify.	US
Q. 6	(a)	Discuss various formulation strategies for enhancing drug	06
	()	permeation through skin.	
	(b)	Explain maintenance of records and documents as a part of GMP	05
	(c)	Describe advantages and applications of lyophilized products.	05
Q.7	(a)	Describe various approaches used for preparation of floating drug	06
		delivery system.	
	(b)	Describe importance of good cleaning in pharmaceutical industry.	05
	(c)	Write a note on pulsetile drug delivery system.	05
