

Seat No.: _____

Enrolment No. _____

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.**

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|-------------|------------|--|-----------|
| 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 schematic diagram. | 05 |
| Q.2 | (a) | Enlist types of FBD. Explain bottom spray FBD. | 06 |
| | (b) | Describe parameters to be controlled for Lyophilization 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 |
| Q.4 | (a) | Differentiate Liposomes and Niosomes. Describe pharmaceutical applications of Niosomes. | 06 |
| | (b) | Enlist type of polymers used in mucoadhesive drug delivery systems. Explain wash out tests for mucoadhesion study. | 05 |
| | (c) | Discuss key parameters that influence the design of osmotic drug delivery systems. | 05 |
| Q.5 | (a) | Enlist methods used for preparation of Liposome. Explain solvent injection method in brief. | 06 |
| | (b) | Write a note ALU-ALU packaging. | 05 |
| | (c) | “Good engineering practices are necessary in pharmaceutical Industry”-Justify. | 05 |
| Q. 6 | (a) | Discuss various formulation strategies for enhancing drug permeation through skin. | 06 |
| | (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 delivery system. | 06 |
| | (b) | Describe importance of good cleaning in pharmaceutical industry. | 05 |
| | (c) | Write a note on pulsetile drug delivery system. | 05 |
