

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
M. Pharm. – SEMESTER – III • EXAMINATION – WINTER • 2014

Subject Code: 930108

Date: 06-12-2014

Subject Name: Industrial Pharmacy - V

Time: 10:30 am - 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.

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|-------------|---|-----------|
| Q.1 | (a) Define lyophilization. Enlist and discuss various applications of lyophilization in pharmaceuticals giving suitable examples. | 06 |
| | (b) Discuss mechanism and process of lyophilization in details. | 05 |
| | (c) Enlist advantages and disadvantages of extrusion spheronization. | 05 |
| Q.2 | (a) Enlist and discuss any two extruder used in pharmaceuticals giving schematic diagram. | 06 |
| | (b) Enlist and discuss factors affecting spheronization. | 05 |
| | (c) Define FFS. Enlist its advantages and disadvantages. | 05 |
| Q.3 | (a) Enlist significance of fluid bed coater and discuss its mechanism. | 06 |
| | (b) Write a note on pre-filled syringes. | 05 |
| | (c) Enlist advantages, disadvantages and significance of ALU-ALU packaging in pharmaceuticals. | 05 |
| Q.4 | (a) Discuss flow chart of manufacturing of osmotic drug delivery system. | 06 |
| | (b) Enlist various concepts to formulate floating drug delivery system and discuss any two in details. | 05 |
| | (c) Enlist advantages, disadvantages and significance of mucoadhesive drug delivery system. | 05 |
| Q.5 | (a) Enlist and discuss factors affecting TDDS. | 06 |
| | (b) Enlist advantages, disadvantages and significance of TDDS. | 05 |
| | (c) Enlist novel concepts in TDDS and discuss any two in details. | 05 |
| Q. 6 | (a) Enlist various techniques used for preparation of nanoparticles and discuss any two in details. | 06 |
| | (b) Define and classify liposome. Enlist various applications of liposome in pharmaceuticals. | 05 |
| | (c) Enlist and discuss evaluation of niosomes. | 05 |
| Q.7 | (a) Explain in details “Why there is need of NDDS?” Discuss problems associated to formulate NDDS by pharmaceutical industry. | 06 |
| | (b) Enlist advantages, disadvantages and significance of Osmotic drug delivery system. | 05 |
| | (c) Describe the objectives of maintenance and cleaning in Pharmaceutical industry. | 05 |
