

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**M.Pharm Semester –II Examination Dec. - 2011**

**Subject code: 920102**

**Date: 08/12/2011**

**Subject Name: Novel Drug Delivery System Part-I**

**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.**

- |             |   |           |
|-------------|---|-----------|
| <b>Q.1</b>  | (a) Enumerate drawback of conventional dosage form. Describe various mechanism of drug release modulation in oral solid dosage forms. | <b>06</b> |
|             | (b) Describe advantages of osmotic drug delivery. Discuss EOP.  | <b>05</b> |
|             | (c) Describe rational of gastroretentive drug delivery system. Explain high density approach.   | <b>05</b> |
| <b>Q.2</b>  | (a) Describe effervescent based floating drug delivery.   | <b>06</b> |
|             | (b) Explain significance of sublingual drug delivery system. How they are evaluated?  | <b>05</b> |
|             | (c) Discuss regulating aspects of packaging materials.  | <b>05</b> |
| <b>Q.3</b>  | (a) Describe pH dependent approach for colon targeted drug delivery.  | <b>06</b> |
|             | (b) Enumerate various techniques for particulate coating. Explain spray dry coating.  | <b>05</b> |
|             | (c) Describe factors affecting on drug release from osmotic drug delivery system.   | <b>05</b> |
| <b>Q.4</b>  | (a) Enlist various approaches for taste masking. Explain encapsulation.   | <b>06</b> |
|             | (b) Classify types of Liposomes based on composition. Explain any one method of liposome manufacturing.                               | <b>05</b> |
|             | (c) Enlist vegetable capsule. Explain significance of Pullulan capsule.   | <b>05</b> |
| <b>Q.5</b>  | (a) Write a note on tamper proof packaging.   | <b>06</b> |
|             | (b) Enlist types of innovation in liquid dosage form. Discuss pharmaceutical applications of Nanoemulsion.                            | <b>05</b> |
|             | (c) Write a note on Pulsincap Technology.   | <b>05</b> |
| <b>Q. 6</b> | (a) Describe recent advances in semisolid dosage form. Explain organogel.   | <b>06</b> |
|             | (b) Describe evaluation of colon targeted drug delivery system.   | <b>05</b> |
|             | (c) Write notes on quality control of glass containers.   | <b>05</b> |
| <b>Q.7</b>  | (a) Describe formulation of ocular controlled drug delivery systems.  | <b>06</b> |
|             | (b) Explain in vivo evaluation methods for GRDDS.   | <b>05</b> |
|             | (c) Describe prodrug approach for colon drug delivery system.   | <b>05</b> |

\*\*\*\*\*