

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. - SEMESTER-8 • EXAMINATION – SUMMER -2018

Subject Code: 2280001

Date: 28/04/2018

Subject Name: Dosage form Design 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.

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|-------------|-----|---|-----------|
| Q.1 | (a) | Enlist various methods of preparation of microspheres and explain double emulsion method in detail. | 06 |
| | (b) | Explain influence of extraction ratio in hepatic clearance. | 05 |
| | (c) | Enlist different types of hydrogels and explain in situ gel in detail. | 05 |
| Q.2 | (a) | Enumerate various parenteral drug delivery system and explain any one in detail. | 06 |
| | (b) | Write short note on Michaelis Menton Equation. | 05 |
| | (c) | Explain importance of tortuosity and porosity in dissolution. | 05 |
| Q.3 | (a) | Write a note on pharmacokinetic drug interactions with examples. | 06 |
| | (b) | Discuss ideal characteristics of drug eligible for transdermal drug delivery system. | 05 |
| | (c) | Explain lag time and burst effect in controlled drug delivery system with diagram. | 05 |
| Q.4 | (a) | Explain catenary and mammillary compartment models in detail. | 06 |
| | (b) | Briefly explain colon targeted osmotic drug delivery system. | 05 |
| | (c) | Discuss in brief, effect of disease on colonic absorption of drugs. | 05 |
| Q.5 | (a) | Explain in detail, evaluation parameters of transdermal patch. | 06 |
| | (b) | Differentiate liposomes and niosomes. | 05 |
| | (c) | Write a note on reservoir type of controlled drug delivery system. | 05 |
| Q. 6 | (a) | Enlist different types of targeted drug delivery system and explain any one in detail. | 06 |
| | (b) | Give example of hydrophobic type of matrix system and explain mechanism of drug release from it. | 05 |
| | (c) | Explain appropriately with equations if necessary, dosage adjustment in patients with renal failure. | 05 |
| Q.7 | (a) | Write short note on Pulsincap with appropriate figure. | 06 |
| | (b) | Elaborate effervescent system in GRDDS. | 05 |
| | (c) | Define C _{max} , Volume of distribution, compartment model, Total clearance and Clinical pharmacokinetics. | 05 |
