

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 8- EXAMINATION –WINTER - 2018

Subject Code:2280001

Date: 15/11/2018

Subject Name: Dosage form Design II

Time:02:30 PM TO 05:30 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) | Give the difference between conventional and controlled release system. Describe the advantages and limitations of sustained release formulations. | 06 |
| | (b) | Write a note on dissolution and diffusion controlled release system. | 05 |
| | (c) | Explain in detail evaluation of oral controlled release formulations. | 05 |
| Q.2 | (a) | Discuss in detail the evaluation parameters for Transdermal patches. | 06 |
| | (b) | Write a note on colon targeted drug delivery system. | 05 |
| | (c) | Discuss the various approaches for floating drug delivery systems | 05 |
| Q.3 | (a) | Write advantages of gastro-retentive drug delivery. Explain expandable approach. | 06 |
| | (b) | Explain liposomes and niosomes. Describe any one method for their preparation. | 05 |
| | (c) | Discuss the formulation development of osmotic tablets with example. | 05 |
| Q.4 | (a) | What are pharmacokinetic models? Explain in detail one compartment model. | 06 |
| | (b) | Explain Wagner nelson method in detail. | 05 |
| | (c) | Describe the method of residuals for determination of absorption rate constant. | 05 |
| Q.5 | (a) | Define C _{max} , Volume of distribution, compartment model, Total clearance and Clinical pharmacokinetics. | 06 |
| | (b) | Explain dosage adjustment in patients with hepatic failure. | 05 |
| | (c) | Explain term: Drug interaction. Discuss ADME drug interactions with suitable examples. | 05 |
| Q. 6 | (a) | Enlist different types of targeted drug delivery system and explain any one in detail. | 06 |
| | (b) | Discuss in detail about PULSINCAP Technology. | 05 |
| | (c) | Write a note on: Microspheres. | 05 |
| Q.7 | (a) | Explain clinical pharmacokinetics? Enlist its applications in drug therapy. | 06 |
| | (b) | What are loading and maintenance dose? How are they calculated? | 05 |
| | (c) | Write a short note on Hydrogel. | 05 |
