

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 8 EXAMINATION – SUMMER -2019

Subject Code: 2280001

Date: 04-05-2019

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) | Explain biological factors affecting the design of oral sustained release drug delivery system. | 06 |
| | (b) | Write note on Bio erodible controlled drug delivery system. | 05 |
| | (c) | Discuss various causes for non linearity of drug | 05 |
| Q.2 | (a) | Explain effect of porosity and tortuosity on controlled drug delivery system. | 06 |
| | (b) | Explain “Drug interaction” Discuss ADME drug interaction with suitable example | 05 |
| | (c) | Define clinical pharmacokinetics. Explain methods for the calculation of creatinine from serum creatinine concentration. | 05 |
| Q.3 | (a) | Explain dosage adjustment in patients with renal and hepatic failure. | 06 |
| | (b) | Discuss in brief about PULSINCAP technology | 05 |
| | (c) | Write merits of non compartmental analysis. Explain AUC & AUMC plots. | 05 |
| Q.4 | (a) | Give criteria for obtaining valid urinary excretion method. | 06 |
| | (b) | Write a note on hydrogel | 05 |
| | (c) | Explain the method of residuals for the calculation of absorption rate constant from oral data. | 05 |
| Q.5 | (a) | Discuss the formulation of parenteral emulsion and suspensions. | 06 |
| | (b) | Discuss extraction ratio and hepatic clearance in detail. | 05 |
| | (c) | Explain michaelis menten equation. | 05 |
| Q. 6 | (a) | Explain non erodible and erodible ocular control release system. | 06 |
| | (b) | Write note on matrix tablets. | 05 |
| | (c) | Write fundamental and rational of modified release drug delivery system. | 05 |
| Q.7 | (a) | Give on account of approaches for designing of gasro retentive dosage form. | 06 |
| | (b) | Give advantages and disadvantages of compartment modeling. | 05 |
| | (c) | Describe floating drug delivery system. | 05 |
