

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. - SEMESTER-7 • EXAMINATION – SUMMER -2018

Subject Code: 2270001

Date: 19/05/2018

Subject Name: Dosage form Design I

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) | What is binder? Discuss the effect of binder on formulation of Pharmaceutical product. | 06 |
| | (b) | What is Disintegrant. Give the mechanism of and Factor affecting disintegrant on formulation of pharmaceutical product. | 05 |
| | (c) | Write a note on effect of emulsifying and suspending agent on Pharmaceutical formulation. | 05 |
| Q.2 | (a) | How does particle size influence GI absorption of drugs? Explain with suitable example. | 06 |
| | (b) | Writes the importance of physical forms in drug absorption. Explain with suitable example. | 05 |
| | (c) | Explain the characteristics of Active transport process. Write their application in the development of formulation and administration of drugs. | 05 |
| Q.3 | (a) | Define Preformulation? Give its importance. | 06 |
| | (b) | Enumerate the drug degradation pathways and discuss Hydrolysis in detail. | 05 |
| | (c) | Write notes on physicochemical parameters studied in preformulation study. | 05 |
| Q.4 | (a) | Explain world climatic zones as per ICH guidelines. | 06 |
| | (b) | Discuss Brackating and Matrixing in brief. | 05 |
| | (c) | Discuss the factors affecting stability of drug. | 05 |
| Q.5 | (a) | What is BCS? Classify and give the significance of this system | 06 |
| | (b) | Explain USP dissolution apparatus III, IV and V with diagram. | 05 |
| | (c) | What is IVIVC? Describe In-vitro - In-vivo correlations levels. | 05 |
| Q. 6 | (a) | Write a note on similarity factor and dissimilarity factor. | 06 |
| | (b) | Explain: 1) Shelf life 2) Overages 3) Climatic Zones | 05 |
| | (c) | Discuss pH –Partition hypothesis briefly with suitable examples. Enumerate the assumptions of this hypothesis. | 05 |
| Q.7 | (a) | Give its objectives & classification of BCS. Give condition for justifying request of biowaiver. | 06 |
| | (b) | Discuss Brackating and Matrixing in brief. | 05 |
| | (c) | Enumerates factors affecting dissolution of drug, discuss factors related to drug product formulation. | 05 |
