

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER-VII • EXAMINATION – SUMMER- -2018

Subject Code: 2270001**Date: 19/05/2018****Subject Name: Dosage Form Design –I****Time: 02:30PM TO 05:30PM****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 rrvvc? 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) Protein binding | 05 |
| | (c) Discuss pH —Partition hypothesis briefly with suitable examples. Enumerate the assumptions of this hypothesis. | 05 |
| Q.7 | (a) Give a brief account on any one method of determining the bioavaibility. | 06 |
| | (b) Write a short notes on Biodegradable polymers. | 05 |
| | (c) Enumerates factors affecting dissolution of drug, discuss factors related to drug product formulation. | 05 |
