

Seat No.: _____

Enrolment No. _____

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.

- 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**
