

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 3 EXAMINATION – WINTER -2019

Subject Code: BP302TP**Date: 16-11-2019****Subject Name: Physical Pharmaceutics I****Time: 10:30AM TO 01:30PM****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) Define solubility. Explain the factors affecting on solubility of drug with suitable example. **06**
- (b) Discuss in detail Raoult's law and its deviations. **05**
- (c) Write a note on distribution law with its limitations and applications. **05**
- Q.2** (a) Explain in brief (1) Eutectic mixture (2) Sublimation. **06**
- (b) Write a note on liquid crystals. **05**
- (c) Define refractive index. Explain the method used to determine refractive index. **05**
- Q.3** (a) Enlist the methods used to measure the surface and interfacial tensions. Explain any one in detail. **06**
- (b) Write a note on HLB scale. **05**
- (c) Explain in detail about surface active agents. **05**
- Q.4** (a) Define and classify the complexation. Write in detail about "chelates" **06**
- (b) Describe the applications of complexation in field of pharmacy. **05**
- (c) Write a note on Protein drug binding kinetics. **05**
- Q.5** (a) Enlist the methods used to determine the pH. Discuss any one in detail. **06**
- (b) Discuss in detail about Sorensen's pH scale. **05**
- (c) Write a short note on "Buffer Equation" **05**
- Q.6** (a) What is White – Vincent method of making isotonic solution? Discuss with suitable example. **06**
- (b) Discuss in detail about Aerosols. **05**
- (c) Give a note on spreading coefficient **05**
- Q.7** (a) Classify the crystals. Discuss about crystal habit. **06**
- (b) Explain in detail freundlich adsorption isotherm. **05**
- (c) Discuss in brief about buffer capacity. **05**
