

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 2 EXAMINATION – SUMMER -2019

Subject Code: 2220001**Date: 10-06-2019****Subject Name: Physical Pharmacy****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) Define surface tension. Explain capillary rise method. | 06 |
| | (b) Write a note on HLB value. | 05 |
| | (c) Write a brief note on electrical properties of interfaces. | 05 |
| Q.2 | (a) Write a note on liquid crystals. | 06 |
| | (b) Give detail about polymorphism | 05 |
| | (c) Write a note on binding forces between molecules. | 05 |
| Q.3 | (a) Explain solute-solvent interaction. | 06 |
| | (b) Describe the role of surfactant in solubility. | 05 |
| | (c) Explain the solubility of liquid in liquid. | 05 |
| Q.4 | (a) Write a note on Cup and Bob viscometer. | 06 |
| | (b) Explain plastic & pseudoplastic flow. | 05 |
| | (c) Explain thixotropy in formulation | 05 |
| Q.5 | (a) Write a note on derived properties of powder. | 06 |
| | (b) Enumerate the method are used to particle size determination. Explain sedimentation method | 05 |
| | (c) Classify the complexes. Explain chelates. | 05 |
| Q. 6 | (a) Define suspension & explain sedimentation volume and degree of flocculation in detail. | 06 |
| | (b) Write a brief note on optical properties of colloid. | 05 |
| | (c) Write a note on theories of emulsification | 05 |
| Q.7 | (a) Write a note about on metal complexes. | 06 |
| | (b) Explain wetting phenomena. | 05 |
| | (c) Differentiate Lyophilic and Lypophobic colloids | 05 |
