

C. U. SHAH UNIVERSITY

Summer Examination-2019

Subject Name: Physical Pharmaceutics I -Theory

Subject Code: BP302T

Branch: B. Pharm

Semester: 3

Date: 13/03/2019

Time: 02:30 To 05:30

Marks: 75

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

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|------------|---|-------------|
| Q-1 | Briefly explain the following questions: | (20) |
| | a) Raoult's law | 2 |
| | b) Distribution law | 2 |
| | c) States of matter | 2 |
| | d) Glassy state | 2 |
| | e) Liquid crystals. | 2 |
| | f) Refractive index | 2 |
| | g) Dipole moment | 2 |
| | h) Surface free energy | 2 |
| | i) Complexation | 2 |
| | j) Buffer capacity | 2 |
| Q-2 | Attempt any two of following : | (20) |
| | A Discuss the Factors influencing solubility | 10 |
| | B Write a note on surfactants and HLB. | 10 |
| | C Classify the types of complexes. Explain any two in detail. | 10 |
| Q-3 | Attempt any Seven of following : | (35) |
| | A Explain various solubility expressions. | 5 |
| | B Write a short note on Aerosols. | 5 |
| | C Briefly explain Polymorphism. | 5 |
| | D Write a short note on Spreading coefficient | 5 |
| | E Explain optical rotation in brief. | 5 |
| | F Describe the solute-solvent interactions that influence the solubility of drug in liquids | 5 |
| | G Discuss the applications of complexation and protein binding. | 5 |
| | H Enlist the methods for adjusting tonicity and pH. Explain any one | 5 |
| | I Give applications of buffer in pharmaceuticals. | 5 |

