

GUJARAT TECHNOLOGICAL UNIVERSITY**B.Ph. - SEMESTER-III • EXAMINATION –SUMMER -2023****Subject Code: Physical Pharmaceutics-I****Date: 07/08/2023****Subject Name: BP302TP****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) Describe solubility of liquids in liquids	06
	(b) Explain the solute solvent interactions for polar and non polar solvents.	05
	(c) Write a short note on critical solution temperature and its application in pharmacy	05
Q.2	(a) Discuss on applications of buffers.	06
	(b) Discuss the electric properties of interfaces.	05
	(c) Explain law of distribution	05
Q.3	(a) Write a short note on buffered isotonic solutions	06
	(b) Define solubility. Describe solute-solvent interaction.	05
	(c) Write a brief note on optical rotation	05
Q.4	(a) Write a short note on dielectric constant	06
	(b) Write a short note on Rault's law	05
	(c) Discuss the structure , properties and significance of liquid crystals.	05
Q.5	(a) Write applications of drug protein binding in drug activity.	06
	(b) Write a note on Aerosols.	05
	(c) Write a note on surface active agents.	05
Q. 6	(a) Define HLB. Describe HLB scale indetail.	06
	(b) Classify the complexes and explain its application in pharmacy.	05
	(c) Write a short note on Spreading Coefficient.	05
Q.7	(a) Write a note on polymorphism.	06
	(b) Discuss on crystalline structures of complexes.	05
	(c) Write a short note on Eutectic mixtures	05
