DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE.

End Semester Examination – Summer 2023

Date: 24/07/2023

Course : B. Pharmacy — Sem: III

Subject Name : Physical Pharmaceutics I — Subject Code: BP302T

Max Marks : 75 — Duration : 3 Hr.

Instructions:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q. 1. Objective Type Questions (Answer all the questions) (10

i) Define polymorphism along with example.

ii) Draw HLB scale.

iii) Write about relative humidity.

iv) Define CMC and surface tension.

v) Write application of buffer in pharmacy.

vi) Define UCT and LCT along with example.

vii) Write Henderson Hasselbalch equation for acid and base.

viii) State Raoult's law.

ix) Give importance of protein binding.

x) Why surface tension is greater than interfacial tension.

Q. 2. Long Answers (Answer 2 out of 3)

i) Explain distribution law along with its application and limitation.

ii) Define complexation and classify it.

iii) Explain different methods to determine surface and interfacial tension.

Q. 3. Short Answers (Answer 7 out of 9)

i) Explain different factors affecting on solubility of drug.

ii) Write a note on liquid crystals.

iii) Explain properties of crystalline and amorphous solids.

iv) State Phase Rule and explain phenol-water system with neat diagram.

v) Enlist different physicochemical properties of drugs and explain refractive index

vi) Write a note on spreading coefficient.

vii) Explain any one method to determine pH of solution.

viii) Write a note on solubilization and detergency.

ix) Explain solubility method to determine complexation.

——END OF THE PAPER——