DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 23

Date:14/07/2023

Course:	**B. Pharmacy**	**Sem:**	**IV**
Subject Name:	**Physical Pharmaceutics-II**	**Subject Code:**	**BP403T**
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 x 2) = 20

i) What is Brownian movement? Which formulation shows Brownian movement?

ii) Explain the term 'Colloid' mention its applications.

iii) Explain the term 'Shear thinning' and 'Shear thickening' systems. Give one example of each.

iv) Discuss the term 'Thixotropy'.

v) Differentiate between flocculated and deflocculated suspension.

vi) Describe different types of strain.

vii) Enlist various identification tests for emulsion and explain any one of them.

viii) Write steps involved in the preparation of emulsion by wet gum method.

ix) Draw neat labelled diagram of Anderson pipette.

x) Explain order of reaction with example.

Q. 2. Long Answers (Answer 2 out of 3) (2 x 10) = 20

i) Define Rheology and explain in details all fluids (flow) under rheology.

ii) What is Micromeritics? Give its importance in pharmacy. Explain in details methods used to determine particle size.

iii) What is colloidal dispersion? How will you stabilise colloidal dispersion by DLVO theory.

Q. 3. Short Answers (Answer 7 out of 9) (7 x 5) = 35

i) Write a note on chemical kinetics.

ii) Explain in details about ICH guidelines for accelerated stability testing.

iii) Define drug stability. Enlist and explain types of degradation of drug with example.

iv) Define stress and differentiate between elastic and plastic deformation.

v) Define viscosity. Classify viscometers and explain in details working of any one class of viscometers.

vi) Explain general properties of different types of colloids.

vii) Write a note on emulsion.

viii) Discuss about coulter-counter method for determination of particle volume.

ix) State and explain Hooke's Law.

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