

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Regular Winter 2023

Course : B. Pharmacy
Subject Name : Physical Pharmaceutics-I
Max Marks : 75

Sem: IIIrd
Subject Code :BP302T
Duration : 3 Hr.

Date: 04/01/2024

Instructions:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary <https://pharmacyindia.co.in/>
3. Figures to right indicate full marks

Q. 1. Objective Type Questions (Answer all the questions) (10 x 2) = 20

- a) State and explain the kinetic molecular theory of gas.
- b) Define solvation and association.
- c) State the classification of complexes.
- d) Define polymorphism with example.
- e) Define HLB and draw the scale.
- f) State the importance of Complexation in pharmacy.
- g) Define the term hypertonicity and hypotonicity
- h) Give Importance of protein binding.
- i) State electrometric method for determination of pH.
- j) Differentiate between Crystalline solid and amorphous solid.

<https://pharmacyindia.co.in/>

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

- a) Define dissolution. Explain the different quantitative factors influencing the solubility of drugs.
- b) Enlist and explain different methods for the determination of surface tension.
- c) Define Liquefaction of gas. State the Principal and working of Faradays method, Lindes Method and Cloudes Method with suitable diagram.

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

- a) State and explain Fick's Law of Diffusion. <https://pharmacyindia.co.in/>
- b) Explain the method for determination of Critical Solution Temperature
- c) Enlist the components of aerosol and state the role of each component.
- d) Explain phase transition between solid, liquid and gas