

C.U.SHAH UNIVERSITY

Winter Examination-2022

Subject Name: Physical Pharmaceutics I - Theory**Subject Code: BP302T****Branch: B.Pharm****Semester: 3****Date: 22/11/2022****Time: 11:00 To 02:00****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-I Answer the following in brief: (20)**
1. Real solutions 02
 2. Eutectic mixtures 02
 3. Vapor pressure 02
 4. Inhalers 02
 5. Surface tension and Interfacial tension 02
 6. Surface free energy 02
 7. Spreading coefficient 02
 8. Detergency 02
 9. Protein binding 02
 10. Isotonicity 02
- Q-II Attempt any two: (20)**
1. Describe the solute-solvent interactions that influence the solubility of drug in liquids. 10
 2. Write a note on Aerosols. 10
 3. Enlist the methods to determine surface tension of liquids and discuss any one method in detail. 10
- Q-III Attempt any seven: (35)**
1. Describe Roul't's law. 5
 2. Write a note on Polymorphism. 5
 3. Describe Phase rule concerned with the system containing two components. 5
 4. What is Dissociation constant? 5
 5. Write note on HLB scale and its applications. 5
 6. Discuss cyclodextrin complexation. 5
 7. Explain the kinetics of protein binding. 5
 8. Write note on Sorenson's pH scale 5
 9. Describe the use of buffers in pharmaceutical preparations 5

