

**35382 : Physical Pharmaceutics - I : BP 302 T**

P. Pages : 2

Time : Three Hours



* 0 5 9 6 *

AW - 2345

Max. Marks : 75

- Notes :
1. Answer **All** questions.
 2. Illustrate your answer necessary with the help of neat sketches.
 3. Use of pen Blue/Black ink/refill only for writing the answer book.

1. All questions are compulsory. **2x10**
=20
 - i) Give solubility expression in terms of part of solvent & solute.
 - ii) Discuss eutectic mixture.
 - iii) Define surface tension and write unit for it's measurement.
 - iv) Define polymorphism.
 - v) Define buffers & give two examples.
 - vi) Give applications of wetting agents.
 - vii) Define complexations.
 - viii) What is pH scale. Enlist methods of measurement of pH.
 - ix) Add a note on sublimation.
 - x) Enlist methods used for measurement of surface tension.
2. Solve **any two**. **10x2**
=20
 - i) Enlist the factors affecting solubility of drugs? Discuss the effect of pH & effect of solvent in details.
 - ii) Give classification of complexes. Discuss metal ion complexes or organic molecular complexes.
 - iii) Explain ring detachment method and used for determination drop-count-method of surface tension & interfacial tension.
3. Solve **any seven**. **5x7**
=35
 - i) State Raoult's law of Ideal solution for solubility of liquids in liquids.
 - ii) Add a note on HLB scale.



iv) Define surfactants. Give its applications.

v) Add a note on protein binding.

vi) Explain spreading co-efficient.

vii) Describe wetting and detergency phenomenon.

viii) Define CMC. Explain method of determination of CMC.

ix) Define Isotonicity? Enlist the methods for adjustment of tonicity & discuss any one in brief.
