

FACULTY OF PHARMACY

**B. Pharmacy III-Semester (PCI) (Main & Backlog) Examination,
January 2020**

Subject: Physical Pharmaceutics - I

Time: 3 Hours

Max. Marks: 75

**Note: Answer all Questions from Part – A, and Two questions from Part – B,
and any Seven questions from Part – C.**

PART – A (10 X 2 = 20)

1. What is sorenson's pH scale?
2. What is buffer? Write the buffer equation.
3. What are solid dispersions?
4. What is common ion effect? Explain.
5. What is Refractive index?
6. What are ampholytes, Give examples?
7. Write the solubility of drug as part of solvent required for a part of solute as per USP.
8. Define complexation & chelation.
9. Define Detergency with example.
10. Define optical activity and specific rotation.

PART – B (2 x 10 = 20)

11. State and explain the relative lowering of vapour pressure of Roul't's law. Explain its limitations.
12. What is Polymorphism? Give 4 examples of drugs exhibiting Polymorphism, Write its significance.
13. Explain in detail methods of adjustment of tonicity.

PART - C (7 x 5 = 35)

14. Write a note on Liquid Crystals.
15. Write a short note on –
(a) Noyes-whitney equation (b) Dankwert's Model
16. State distribution law. Discuss the applications.
17. Explain about Protein binding.
18. Define refractive index. Describe snell's law in detail.
19. Describe capillary rise method to determine surface tension of liquid.
20. Define complexation. What are types of complexes? Write about inclusion complex.
21. Enlist various methods of liquefaction gases. Explain any two.
22. Explain the difference between ideal solution and real solution.
