QP Code: 322006 **Reg. No……**

Third Semester B. Pharm Degree Supplementary Examinations October 2024

Physical Pharmaceutics I

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers.***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Discuss Raults law for ideal solution with neat, labelled vapour pressure curve.
2. Describe the method to determine number and weight distribution of particles.

Short Notes **(7x5=35)**

3. Explain the effect of temperature on solubility with solubility curve.
4. Explain different types of powder densities.
5. Define Polymorphism and mention its applications in pharmacy.
6. Explain distribution law.
7. Describe one method for the determination of complex equilibrium stability constant.
8. Differentiate between colorimetric and electrometric method to determine the pH of a solution.
9. Explain the applications of buffers in pharmacy.

Answer Briefly **(10x2=20)**

10. Define dissociation constant and mention its one application in pharmacy.
11. Define eutectic mixtures.
12. Mention any two applications of monomolecular inclusion complexes.
13. Explain the principle involved in the method of pH titration in complexation.
14. Define critical solution temperature and mention its application.
15. Describe the effect of drug-protein binding on absorption of drug.
16. Classify liquid-liquid solutions and give examples.
17. What does pH indicator mean. Write its applications.
18. Define porosity.
19. Importance of istonicity in pharmaceutical formulations.

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