

QP Code: 322006

Reg. No.....

**Third Semester B. Pharm Degree Regular/Supplementary  
Examinations August 2023  
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. Explain the factors influencing the solubility of drugs.
2. Explain the methods for the determination of particle size of pharmaceutical powders.

**Short Notes**

**(7x5=35)**

3. Determination of surface area by adsorption of gas on powder.
4. The solubility of liquids in liquids based on ideal and real solution.
5. Sublimation critical points.
6. Assess the liquid complexes.
7. The different applications of complexation.
8. Give a methodology for determination of pH by colorimetric method.
9. Interpret the buffers in pharmaceutical and biological systems.

**Answer Briefly**

**(10x2=20)**

10. The pharmaceutical significance of pH.
11. How tonicity of hypotonic solution is adjusted by sodium chloride equivalent method.
12. Explain mole fraction.
13. The miscibility of liquids based on solubility.
14. Dielectric constant and its application in pharmacy.
15. Explain relative humidity and mention its importance.
16. Classify the metal ion coordination complexes.
17. Explain the methods of complex analysis techniques.
18. Angle of repose and its applications.
19. Bulkiness.

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