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B. PHARM
(SEMIII) THEORY EXAMINATION 2022-23
PHYSICAL PHARMACEUTICS I

Time: 3 Hours**Total Marks: 75****Note:** Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.**10 x 2 = 20**

- (a) Write any two limitations of Freundlich adsorption isotherm.
- (b) What are channel type complex? Give examples.
- (c) Describe the term isotonicity with example.
- (d) What do you mean by glassy state?
- (e) Explain buffer equation.
- (f) Write the solubility expressions for the solubility of solids in liquids
- (g) What are sandwich complexes?
- (h) What are aerosols?
- (i) Write any two applications of buffers in pharmacy.
- (j) Define the term ligands with examples.

SECTION B

2. Attempt any two parts of the following:**2 x 10 = 20**

- (a) Define azeotropic mixtures. With the help of neat diagram explain in detail fractional distillation process.
- (b) Define optical rotation. Discuss in detail about working of polarimeter.
- (c) Define interfacial tension. Explain in detail working of stalagmometer. Write its applications.

SECTION C

3. Attempt any five parts of the following:**7 x 5 = 35**

- (a) Discuss in detail about electrometric determination of pH.
- (b) Explain real solution with examples.
- (c) Discuss in detail surface free energy.
- (d) Define complex. Classify with examples.
- (e) Explain in detail diffusion principles in biological systems.
- (f) Write the applications of inclusion complexes with examples.
- (g) Explain griffins scale in detail.