Fourth Semester B.Pharm Degree Regular/Supplementary Examinations April 2021
Physical Pharmaceutics II

(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. What are the different methods for determination of order of a reaction. Derive an equation to prove that half-life in first order reaction is independent of initial concentration of a reactant.

2. What is thixotropy. How is thixotropy measured. What is its significance in pharmaceutical formulations.

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

3. Explain theories of emulsification.
4. Write working principle of stalagmometer.
5. Briefly explain the classification of colloids
6. Antioxidants in pharmaceutical formulations.
7. Classify surfactants with examples.
8. State and explain Heckel equation for deformation of solids.
9. Explain electrical properties of colloidal dispersion.

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

10. Define gold number.
11. Name two natural and synthetic suspending agents.
12. Explain the influence of temperature on viscosity of liquid.
13. What are shearing stress and rate of shear.
14. What are the causes for creaming in an emulsion.
15. Explain the Stokes equation for settling of particles in suspension
16. What is a pseudo plastic system.
17. Freaundlich equation for adsorption at solid interface.
18. Plug flow.
19. Peptization in colloidal dispersions.

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