

QP Code: 423006

Reg. No.....

**Fourth Semester B.Pharm Degree Supplementary Examinations**

**November 2022**

**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. Define order of reaction. Derive an equation for rate and half life for zero and first order reaction.
2. Define colloids. Give its types. Explain optical properties of colloids.

**Short Notes**

**(7x5=35)**

3. Discuss pseudo plastic flow behaviour
4. Give the working principle of cup and bob viscometer with a labeled diagram
5. Explain flocculated and deflocculated suspensions
6. Rheology in • Emulsions • Suspensions
7. State and explain Langmuir adsorption isotherm
8. Derive an equation for spreading coefficient. What is its significance
9. Protection of drugs against oxidation

**Answer Briefly**

**(10x2=20)**

10. Name two instruments used to measure surface tension
11. Plastic deformation
12. Write the application of HLB
13. Gold number
14. Phase inversion.
15. Stokes law
16. Arrhenius equation
17. Multiple emulsions
18. Apparent zero order reaction
19. Thixotropy

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