

QP Code: 423006

Reg. No.....

**Fourth Semester B.Pharm Degree Examinations July 2019**

**Physical Pharmaceutics II**

**(2017 Scheme)**

**Time: 3 Hours**

**Max. Marks: 75**

- **Answer all questions**
- **Draw diagrams wherever necessary**

**Essays**

**(2x10=20)**

1. What is meant by order of a reaction. Explain the methods to determine order of a reaction.
2. Explain different Non Newtonian flows with mechanisms, rheograms and examples.

**Short Notes**

**(7x5=35)**

3. Explain settling in suspension
4. Explain with neat diagram the working principle of Du Nouy tensiometer
5. Differentiate lyophilic, lyophobic and association colloids based on their general characteristics
6. Accelerated stability testing
7. What is plug flow. What it is due to. How to overcome plug flow
8. Explain various adsorption isotherms.
9. Peptization and protection of colloids

**Answer Briefly**

**(10x2=20)**

10. Define shelf life
11. How to protect the drugs from photolytic degradation
12. What is kinematic viscosity
13. What is surface free energy
14. What is spreading coefficient
15. How to achieve controlled flocculation in a suspension
16. What are detergents
17. Define gold number
18. What is HLB scale
19. What are Newtonian systems.

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