

**UNIVERSITY OF JAFFNA**  
**BACHELOR OF PHARMACY**  
**SECOND YEAR SECOND SEMESTER EXAMINATION – FEBRUARY 2018**  
**PHACE 2234 PHARMACEUTICS III – PAPER II**

**Date: 12.03.2018**

**Time: 02 Hours**

**ANSWER ALL EIGHT QUESTIONS**

**1.**

- 1.1 Explain how crystallinity of solids affect dissolution rate. (40 Marks)
- 1.2 Describe the different solubilization techniques for poorly soluble drugs. (60 Marks)

**2.**

- 2.1 Define colloidal and coarse dispersions. (20 Marks)
- 2.2 List the different types of colloids. (15 Marks)
- 2.3 Explain the differences among the different types of colloids mention in 2.2. (65 Marks)

**3.**

- 3.1 Explain the deflocculation and flocculation states of coarse dispersion with the help of DLVO theory. (50 Marks)
- 3.2 Explain the importance of following for the pharmaceutical suspensions.
- 3.2.1 Controlled flocculation (25 Marks)
- 3.2.2 Structured vehicle of hydrophilic types (25 Marks)

**4.**

- 4.1 Draw the rheogram for different types of rheological systems. (30 Marks)
- 4.2 Mention the differences among types of rheological systems. (30 Marks)
- 4.3 Explain the rheological importance of different pharmaceutical formulations. (40 Marks)

5.

- 5.1 Classify surfactants. (10 Marks)
- 5.2 Briefly describe the types of surfactants mentioned in 5.1. (20Marks)
- 5.2 Describe the pharmaceutical application of surfactants. (70Marks)

6.

- 6.1 List the fundamental properties of powder. (20 Marks)
- 6.2 Explain the
- 6.2.1 factors that contribute to cohesiveness of powders. (45 Marks)
- 6.2.2 pharmaceutical importance of micromeritics. (35 Marks)

7. Describe the

- 7.1 pharmaceutical uses of  $\beta$ -cyclodextrin. (40 Marks)
- 7.2 limitation of accelerated stability studies. (60 Marks)

8. Write an account on

- 8.1 photodegradation of drugs. (40 Marks)
- 8.2 structural features of gels. (60 Marks)

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