

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BPHARM 0122]

**JANUARY 2022
(MARCH 2021 EXAM SESSION)**

Sub. Code: 2042

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER IV

PAPER III – PHYSICAL PHARMACEUTICS II

Q.P. Code : 562042

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Explain the various theories of emulsification.
2. What is meant by Rheology? Explain shear thickening and shear thinning with suitable examples.
3. Describe the electrical properties of colloids.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Discuss preservation of emulsions.
2. Compare and contrast lyophilic and lyophobic colloids.
3. Explain the various methods for determination of order of a reaction.
4. Describe the microscopic method for the determination of particle size and size distribution.
5. Give an account of applications of rheology in pharmacy.
6. Describe controlled flocculation.
7. Explain the factors influencing rate of reaction.
8. Describe the principle and working procedure involved in cup and bob viscometer.
9. Explain the term micromeritics and its significance in pharmacy.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define order of reaction.
2. Explain the term thixotrophy.
3. Define angle of repose.
4. Stoke's law.
5. What is kraft and cloud point?
6. Overages.
7. Define Brownian motion.
8. Bulkiness.
9. Define emulsifying agent and give examples.
10. Newton's law of flow.
