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

(LP 2042) SEPTEMBER 2019 **Sub. Code: 2042**

B.PHARM. DEGREE EXAMINATION
PCI Regulation – 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. Define and classify Colloids with suitable examples. Discuss their electrical properties.
2. Explain objectives, procedures and limitations of accelerated stability testing.
3. Describe the various types of rheological systems with suitable rheogram and examples.

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

1. Differentiate flocculated suspension from deflocculated suspension.
2. Discuss Sedimentation technique that used for particle size analysis.
3. Describe the derived properties of powders.
4. Derive first order rate constant.
5. Describe Cup and Bop viscometer.
6. Classify emulsifying agents with examples.
7. Explain the stability of colloids by DLVO theory.
8. Write a note on electrical double layer in colloids.
9. Write a note on factors influencing the chemical degradation of pharmaceutical product.

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

1. Thixotropy.
2. Glidants with examples.
3. Half-life.
4. Bulges and spurs.
5. Protective colloids.
6. Heckel equation.
7. BET equation.
8. Coacervation.
9. HLB scale.
10. Particle size distribution.

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