



**DAN-BP403-T**

Seat No. \_\_\_\_\_

**M. P. M. (Sem. IV) (W.E.F. 2017) Examination**

**April / May - 2022**

**BP-403T : Physical Pharmacy-II (Theory)**

Time : 3 Hours]

[Total Marks : 75

- Instructions :** (1) Answer the following questions.  
(2) Figures to the right indicate marks.  
(3) Draw neat and clean diagrams as required.

**1 Answer the following questions. 20**

- (1) Define suspensions. Write any two advantages of suspensions.
- (2) Enlist methods to identify types of emulsions.
- (3) What are the applications of micromeritics in the production of dosage forms ?
- (4) What are the limitations of accelerated stability studies.
- (5) Enlist various methods to determine order of a reaction.
- (6) Give the formula of Angle of Repose and Carr's index.
- (7) What is the difference between flocculation and creaming.
- (8) Describe any two applications of thixotropy.
- (9) Define Newtonian flow ? Give two examples.
- (10) What is the difference between molecular dispersion and colloidal dispersion ?

**2 Answer the following questions. (Any Two) 20**

- (1) Discuss Newtonian and Non-Newtonian Flow of fluids with rheogram and suitable examples.
- (2) What is micromeritics ? Explain methods for determination of surface area.
- (3) Explain factors affecting stability of drug.

**3** Answer the following questions. (Any Seven)

**35**

- (1) Explain sedimentation method for particle size determination.
  - (2) Discuss methods for determining order of reaction.
  - (3) Explain conductivity method for particle size determination.
  - (4) Difference between microemulsion and multiple Emulsions.
  - (5) Write a note on pseudoplastic, dilatants and plastic flow.
  - (6) Explain in detail thixotropy.
  - (7) Discuss optical properties of colloids.
  - (8) Describe capillary method for the determination of viscosity.
  - (9) Describe physical instability markers of emulsion.
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