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Total No. of Pages : 02

Total No. of Questions : 13

B.Pharma (Sem.-4) PHYSICAL PHARMACEUTICS-II Subject Code : BP-403T M.Code : 75845 Date of Examination : 04-01-2023

Time: 3 Hrs.

Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
- 3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

SECTION-A

1. Answer briefly :

- a) Pseudoplastic flow vs. Dilatant flow.
- b) Number distribution vs. weight distribution curve.
- c) Any two advantages of cone plate viscometer over cup bob viscometer.
- d) Dielectric constant.
- e) Difference between flocculated and deflocculated suspensions.
- f) Kinematic viscosity.
- g) Elastic modulus.
- h) Enumerate different theories of emulsification.
- i) Sieving.
- j) Acid base catalysis.

SECTION-B

- 2. Discuss Principle, construction, working and applications of Brookefield viscometer.
- 3. State different methods of determining Particle size and discuss Andreason Pipette method in detail.
- 4. Discuss stability of emulsions.

SECTION-C

- 5. A drug solution of 150 mg/ml concentration was prepared. Calculate the time required for 20% decomposition of drug, if decomposition follows a zero order kinetics for which specific reaction rate $K= 2.5 \times 10^{-2}$ moles/Lt/hr
- 6. Define zeta potential. How it is determined?
- 7. Define Thixotropy. Explain its importance in pharmacy.
- 8. Explain Arrhenius theory of electrolytic dissociation.
- 9. Enumerate the important factors that influence the particle size analysis by sieving.
- 10. Discuss the stability of pharmaceutical products against hydrolysis.
- 11. Discuss plastic *vs* elastic deformation in solids
- 12. Discuss the optical *vs* electrical properties of colloidal dispersions.
- 13. Discuss in brief the interfacial properties of suspensions.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.