

Roll No. 

Total No. of Pages : 02

Total No. of Questions : 22

**B.Pharma (2017 Batch) (Sem.-4)**  
**PHYSICAL PHARMACEUTICS-II**  
Subject Code : BP-403T  
M.Code : 75845

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 students have to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and students have to attempt any SEVEN questions.

**SECTION-A****Answer briefly :**

- Q1. What is protective colloid?
- Q2. What is meant by Nernst potential?
- Q3. Define Kinematic viscosity and its units.
- Q4. What is the porosity when solid particles are packed closely?
- Q5. What is angle of repose?
- Q6. Give two examples of photolytic degradation of drugs.
- Q7. What is pseudo zero order reaction?
- Q8. What is yield value and in which types of systems it is observed?
- Q9. What is specific surface area and its importance?
- Q10. Write the equation for calculating the half life for a drug following first order degradation kinetics.

**SECTION-B**

- Q11. Differentiate between Newtonian and Non-Newtonian systems giving suitable examples.
- Q12. Differentiate between flocculated and deflocculated suspensions. Discuss the strategies used for reducing settling of particles in suspensions.
- Q13. Explain the use of accelerated stability testing of pharmaceutical products using temperature as a stress condition.

**SECTION-C**

- Q14. Write a note on prevention of hydrolytic degradation in pharmaceutical products.
- Q15. Explain particle shapes and their influence on packing.
- Q16. Briefly explain the differences between conventional and microemulsions.
- Q17. Enumerate the methods used for determination of surface area of powders. Discuss any one method in detail.
- Q18. Write a note on elastic deformation of solids.
- Q19. Discuss the HLB method of preparing emulsions.
- Q20. Classify colloids and mention their properties.
- Q21. What is a falling sphere viscometer? Mention its applications and limitations.
- Q22. Briefly discuss the influence of dielectric constant on drug stability.

**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.**