

**School of Medical and Allied Sciences**

**Bachelor of Pharmacy  
Semester End Examination - Jun 2024**

**Duration : 180 Minutes  
Max Marks : 75**

**Sem IV - BP403T - BPHT4003 - Physical Pharmaceutics II***General Instructions**Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

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|-----|--|-------|
| 1)  | Outline on pseudo order of reaction and draw the relevant plot.          | K2(2) |
| 2)  | Outline the term Rheology.   | K2(2) |
| 3)  | Define the term angle of repose with formula.                            | K1(2) |
| 4)  | Outline a note on non-newtonian flow of liquids with example.            | K2(2) |
| 5)  | Define the stoke's law of sedimentation of particle.                     | K1(2) |
| 6)  | Outline a note on coarse dispersion.                                     | K2(2) |
| 7)  | Define the term adsorption and absorption of solid particles on surface. | K1(2) |
| 8)  | Outline on the term Bingham bodies in short.                             | K2(2) |
| 9)  | Define colloids with their various properties.                           | K1(2) |
| 10) | Define the term Osmotic Pressure.  | K1(2) |
| 11) | Develop a note on kinetic motion (Zig-Zag motion) of colloids.           | K3(5) |

**OR**

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|-----|--|-------|
|     | Develop a note on different size and shapes of colloidal particles.  | K3(5) |
| 12) | Develop a note on average particle size with relevant equation.  | K3(5) |
| 13) | Analyze the importance of microparticul formulation in pharmaceuticals.  | K4(5) |
| 14) | Develop a note on sedimentation process with formula and enlist various methods used to determine rate of sedimentation. | K3(5) |
| 15) | Analyze the term viscosity and effect of temperature on viscosity of liquids.  | K4(5) |
| 16) | Examine the various characteristics of micropheres and enlist methodology used to formulate it                           | K4(5) |

**OR**

- Examine the process of physical degradation of drug substances. K4(5)
- 17) Analyze about the term accelerated stability and major objectives of accelerated stability studies. K4(5)
- 18) Develop a note on Ostwald's viscometer or Falling sphere viscometer. K6(10)
- 19) Appraise the term surface area and write in detail about air permeability method. K5(10)
- OR**
- Appraise the term mixing and write in detail about Hand homogenizer. K5(10)