



17802

**BRAINWARE UNIVERSITY****Term End Examination 2024-2025****Programme – M.Pharm(PC)-2024****Course Name – Pharmaceutical Process Chemistry****Course Code - MPC204T****(Semester II)****Library****Pharmaceutical Technology
Brainware University
Barasat, Kolkata-700125****Full Marks : 75****Time : 3:0 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A**(Short Answer Type Questions)****5 x 5=25**

1. Summarize the principle behind the preparation of polymorphs of an active pharmaceutical ingredient (API). How can solvent and temperature be used to control polymorph formation? (5)
2. Write a detailed note on azeotropic and steam distillation. (5)
3. Explain the general kinetics of halogenation reactions, focusing on the rate law and the factors that influence the reaction rate, such as the concentration of reactants, catalyst (if present), temperature, and solvent. (5)
4. Categories industrial filters and write a short on about four type of filters. (5)
5. Mechanism of Aromatic Nitration and Mixed Acid for Nitration (5)

OR

Compose a note on Nitration: Nitrating agents and Aromatic nitration (5)

Group-B**(Long Answer Type Questions)****10 x 5=50**

6. Illustrate the theories of filtration, Poiseuille's Equation, Darcy's Equation, Kozeny-Carman (K-C) equation. (10)
7. Memorize the types of evaporators, factors affecting evaporation (10)
8. Explain the role of supersaturation in the crystallization process. How does it influence the rate of nucleation? (10)

9. Discuss the principal and types of fermentation based on respiration . (10)

OR

. Discuss the methods of commercial production of Vitamins B12. (10)

10. Summarize the Material used as filter media. (10)

OR

Summarize the Important considerations when choosing an extraction method. (10)
