

QP CODE: 214331

Reg. No:.....

**Second Semester M. Pharm Degree Supplementary Examinations
September 2022**

M.Pharm (Pharmaceutical Chemistry)

Paper IV - Pharmaceutical Process Chemistry (MPC 204T)

Time: 3 Hours

Total Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays

(3x10=30)

1. Explain the reaction progress, kinetic analysis including the characteristics of cost effective routes and reagent selection in detail.
2. Give a detailed account on the stages of scale up process in synthesis of API's
3. Explain the type of evaporators and factors affecting evaporation

Short Notes

(9x5=45)

4. Effluents and its management.
5. Methods of preparation of polymorphs by crystallization.
6. Fire hazards and fire extinguishers.
7. Production of vitamin B₂ and B₁₂.
8. Homogenous and heterogeneous catalytic reduction.
9. Explain the theory of extraction with reflux and extraction with agitation.
10. Azeotropic and steam distillation.
11. Types of halogenation reactions.
12. Explain the theory of filtration and centrifugal filtration
