QP CODE: 214331 Reg. No:......

Second Semester M.Pharm Degree Examinations July 2019 M.Pharm (Pharmaceutical Chemistry)

Paper IV - Pharmaceutical Process Chemistry (MPC 204T)

(2017 Scheme)

Time: 3 Hours Total Marks: 75

- Answer all Questions.
- Draw Diagrams wherever necessary.

Essays (3x10=30)

- 1. Explain the theory of filtration. Add a note on pressure and vacuum filtration, centrifugal filtration.
- 2. Explain in detail about catalytic hydrogenation and case study on industrial reduction process in the manufacture of API's.
- 3. Discuss in detail the stages of scale up process

Short Notes (9x5=45)

- 4. Enumerate the factors affecting crystallization. Add a note on nucleation.
- Impurities in API's, types and their sources including genotoxic impurities.
- 6. Azeotropic distillation
- 7. Production of penicillin
- 8. Different types of evaporators and factors affecting evaporation.
- 9. Cost effective routes and families of reagents useful for scale up.
- 10. Counter current extraction
- 11. Nonmetallic oxidizing agents.
- **12.MSDS**
