QP CODE: 112331 Reg. No:......

## First Semester M.pharm Degree Examinations April 2018 M.Pharm (Pharmaceutical Chemistry)

Paper II: Advanced Organic Chemistry I (MPC 102T)

Time: 3 Hours Total Marks: 75

- Answer all Questions.
- Draw Diagrams wherever necessary.

Essays (3x10=30)

- 1. Explain the mechanism and reactivity of E<sub>1</sub> and E<sub>2</sub> reactions
- 2. Describe the various approaches for protection of functional groups during organic synthesis.
- 3. Explain the mechanism and synthetic applications of Ugi reaction and Dieckmann reaction.

Short Notes (9x5=45)

- 4. Stability and synthetic applications of carbocations
- 5. Outline the synthesis of imidazole
- 6. Explain the synthon approach for carbon- halogen disconnections
- 7. The mechanism and synthetic applications of Sandmeyer reaction.
- 8. Give the synthetic applications of aluminium isopropoxide and titanium chloride
- 9. The synthetic route for chloroquine
- 10. Explain mechanism and stereochemistry of SN<sup>2</sup> reactions
- 11. Describe the addition of functional group by synthon approach.
- 12. Outline the synthesis and medicinal uses of promazine.

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