QP CODE: 112331 Reg. No:.... First Semester M.Pharm Degree Supplementary Examinations July 2019 **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 reaction, mechanism and applications involved in the synthesis of acridine and pyrimidine. Mention the synthesis of amsacrine. Explain the synthetic applications of triphenyl phosphine and Wittig reagent 3. Describe aliphatic nucleophilic substitution reactions. Differentiate SN<sup>1</sup> and SN<sup>2</sup> reactions. **Short Notes** (9x5=45)4. Strategies for synthesis of five membered ring. 5. Terminologies and advantages of retrosynthesis. 6. Functional group inter-conversion and addition with examples. 7. The mechanism of Ullmann Coupling Reaction

- 8. What are the applications of aluminium isopropoxide.
- 9. Explain the synthesis and uses of chlorpromazine and terconazole
- 10. What are the protecting groups for amino acids. Explain briefly.
- 11. Explain the mechanism and application of Debus-Radziszewski imidazole synthesis.
- 12. Reaction and mechanism of Michael addition reaction.

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