

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**M.Sc. DEGREE EXAMINATION – CHEMISTRY****THIRD SEMESTER – NOVEMBER 2019****16/17/18PCH3ES01 – APPLIED ORGANIC CHEMISTRY**

Date: 06-11-2019

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

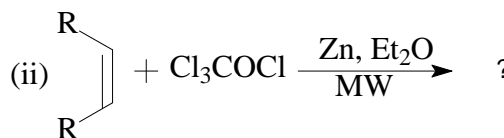
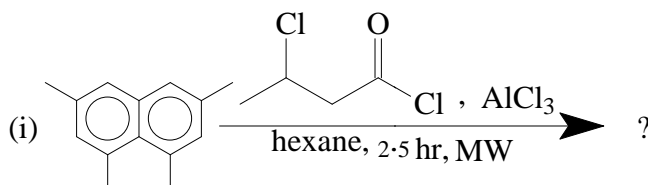
Part-A*Answer ALL questions.***(10 × 2= 20)**

1. Define shear and shear stress.
2. Differentiate between laminar flow and turbulent flow.
3. Outline the application of Gilman reagents in selective carbon-carbon bond formation.
4. Identify the reagents required for the following conversion.

5. What are the effects of chlorofluorocarbon?
6. Predict the product and state whether the following reaction is green reaction or not.



7. Write a polymer supported intramolecular cyclisation reaction.
8. List any four advantages of polymer supported organic synthesis.
9. What is phase transfer catalyst? Give an example.
10. Identify the product in the following reactions.

**Part-B***Answer any EIGHT questions.***(8 × 5= 40)**

11. Discuss any one manufacturing method that involves only unit operations and not processes.
12. Write a note on the following industrial processes: a) Nitration b) Sulphonation
13. Describe the vapor phase and liquid phase catalytic reactions with suitable examples
14. Provide any two methods of preparation of organocobalt and organoaluminium compounds.
15. Write an account on the usage of samarium reagents in organic synthesis.
16. Explain the importance of green solvents with examples.
17. Calculate percentage atom economy for a Claisen and Diels-adder reaction. Highlight its importance in green chemistry.
18. Compare the salient features of general procedure of an organic synthesis by conventional and polymer supported method.

