ГВ165120F	Reg. No.:
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# B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, JANUARY 2019 (2016 Admission Supplementary) SEMESTER V- CORE COURSE (CHEMISTRY) CH5B06TB – ADVANCED ORGANIC CHEMISTRY

Time: Three Hours Maximum Marks: 60

# PART A

- I. Answer all questions. Each question carries 1 mark.
- 1. What is meant by vat dye? Give one example.
- 2. What is Tollen's Reagent? Give its function?
- 3. Give the structure of Amphicillin?
- 4. Define Green Chemistry?
- 5. What are Pericyclic reactions?

 $(5\times 1=5)$ 

### PART B

- II. Answer any five questions. Each question carries 2 marks.
- 6. Define optical isomerism?
- 7. Explain Wolf rearrangement?
- 8. What is meant by soap? Name the different types of soaps.
- 9. What is meant by addition polymer? Give one example.
- 10. What is DCC? Give its synthetic application?
- 11. Explain the structure and function of Borsche's reagent?
- 12. Discuss the structure of Chloramphenicol?
- 13. What are cycloaddition reactions?

 $(5\times 2=10)$ 

# **PART C**

- III. Answer any five questions. Each question carries 5 marks.
- 14. Write a note on Asymmetric synthesis?
- 15. What is Arndt-Eistert synthesis?
- 16. Compare detergents and soaps. Explain the cleansing action of soaps.
- 17. Briefly explain the preparation and functions of Fehling solution, Schiff's reagent and Borsche's Reagent?
- 18. Discuss the preparation and mode of action of sulphanilamide?
- 19. Describe atom economy using suitable examples?
- 20. Explain green solvents with suitable examples?
- 21. What are Diels\_Alder reactions?

 $(5\times 5=25)$ 

# **PART D**

- IV. Answer any two questions. Each question carries 10 marks.
- 22. What is meant by Racemic mixture? What is resolution? Discuss different methods to resolve a racemic mixture
- 23. Discuss the preparation and synthetic applications of Acetoacetic ester?
- 24. (a) What are condensation polymers. Write a note on the preparation and uses of 2 condensation polymers.
  - (b) Discuss the structure and functions of (a) Lead tetra acetate (b) Periodic acid (c) Ziegler -Natta Catalyst (d) NBS
- 25. (a) Explain the principles of green organic synthesis using examples? (b)Discuss Claisen rearrangement?

 $(2 \times 10 = 20)$