

TB165120D

Reg. No.: .....

Name : .....

**B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2018**  
**(2016 Admission Regular & 2015 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. Write the preparation of Nylon-6
2. Mention on use of Raney Nickel
3. What is Analgin chemically?
4. Explain supercritical CO<sub>2</sub>?
5. Define Pericyclic reactions?

**(5 × 1 = 5)**

**PART B**

**II. Answer any five questions. Each question carries 2 marks.**

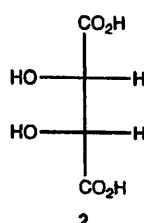
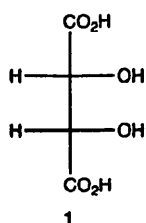
6. Explain the term chirality.
7. Give two synthetic applications of Diazoacetic ester?
8. What is meant by phenol formaldehyde resin? Give its use.
9. Give the preparation and uses of methyl orange.
10. What is DCC? Give its function?
11. Explain what is Benedict's solution? What is its use?
12. Draw the structure and explain the mode of action of sulphanilamide?
13. Explain the use of ionic liquids as green solvents?

**(5 × 2 = 10)**

**PART C**

**III. Answer any five questions. Each question carries 5 marks.**

14. Assign R and S configuration for the following compounds



15. Discuss Arndt-Eistert synthesis? What is Wolf rearrangement?
16. Discuss the classification of dyes based on the mode of application, giving one example each.
17. Give the preparation and function of (a) Tollen's reagent (b) Fehling solution (c) Schiff's reagent (d) Borsche's reagent
18. What are drugs? How are they classified? Give examples?
19. Explain the structure and functions of Chloramphenicol?
20. Discuss atom economy with suitable examples
21. What is Diels-Alder reaction? Explain its stereochemical aspects?

(5 × 5 = 25)

#### PART D

#### IV. Answer any two questions. Each question carries 10 marks.

22. (a) What is meant by Racemisation? Discuss different methods to produce racemic mixture  
(b) Explain the terms i) Optical activity. ii) Diastereoisomer.
23. How is Ethyl acetoacetate prepared? From it how will you prepare (a) Dimethyl acetic acid (b) Adipic acid (c) Crotonic acid (d) 4-Methyl Uracil
24. (a) Give the preparation and uses of polythene, PVC, and Teflon.  
(b) Give the preparation and applications of (a) NBS (b) Lead tetra acetate (c) Periodic acid (d) LDA
25. (a) Discuss the twelve principles of Green Chemistry?  
(b) What is Claisen rearrangement? Explain with mechanism

(2 × 10 = 20)