

B. Sc. DEGREEE (C.B.C.S.S) EXAMINATION, APRIL 2018
(2014 Admission Supplementary)
SEMESTER IV – CORE COURSE (CHEMISTRY)
CHE4BOC - BASIC ORGANIC CHEMISTRY - I

Time: Three Hours

Maximum Marks: 60

PART A

I Answer all questions. Each question carries 1 mark.

1. What is Lucas reagent.
2. What are epoxides?
3. What is active methylene group?
4. Draw the structure of phenanthrene
5. Give the product of ozonolysis of naphthalene.
6. Draw the structure of coumarin.
7. Explain the polarity of carbonyl group.
8. What is meant by reformatsky reaction?

(8x1=8)

PART B

II Answer any six questions. Each question carries 2 marks

9. Write a note on 1°, 2°, 3° alcohols.
10. Explain a method for preparation of semicarbazide.
11. How will you distinguish between acetamide and urea?
12. How will you convert benzene sulphonic acid to benzene.
13. Discuss the structure of carboxylate ion.
14. Explain the reaction between Grignard reagents and carbonyl compounds
15. Explain aldol condensation.
16. What is meant by resorcinol? Give one application

(6x2=12)

PART C

III Answer any four questions. Each question carries 4 marks

17. How is 1°, 2°, 3° alcohols separated.
18. Write the mechanism of acid and base catalysed cleavage of epoxides.
19. What is H-V-Z reaction? Give its mechanism.
20. Amides are much weaker bases than amines, why?
21. Write any four differences between aliphatic and aromatic aldehydes.
22. Briefly explain decarboxylation
23. Explain Claisen Schmidt reaction with mechanism.
24. Compare aldehydes with ketones using any four reactions.

(4x4=16)

PART D

IV Answer any two questions. Each question carries 12 marks

25. Write an essay on the reduction reactions of aldehydes and ketones.
26. (a) Explain two synthetic applications of malonic ester.
(b) How will you prepare anthranalic acid? Discuss any three chemical properties.
27. a) Explain the effects of substituent's on acid strength on acid strength of aliphatic carboxylic acids.
b) Briefly explain preparation, properties of benzene sulphonyl chloride
c) Briefly explain preparation and importance of acetic anhydride
28. Write an essay on Grignard reagents

(2x12= 24)