PC-5894/MH

AS/2051

ORGANIC CHEMISTRY-VI(B)
Paper : ORGANIC B
(Semester-II)
(May-2019)

Time : Three Hours] [Maximum Marks : 26

Note : Attempt *two* questions each from Section A and B carrying 4 marks each and the entire Section C consisting of 5 short answer types questions carrying 2 marks each.

SECTION – A

I. (a) Differentiate between Enantiomerism and Stereoisomerism. (3)

(b) State conditions for a compound to show geometrical isomerism. (1)

II. (a) Differentiate between configuration and conformation. (2)

(b) Write notes on :

(i) Meso compounds.

(ii) Racemization. (2)

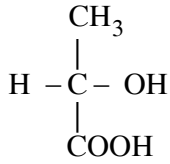
III. Write notes on :

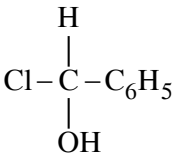
(i) Dextro rotatory compounds. (1)

(ii) Laevo rotatory compounds. (1)

(iii) E & Z system of nomenclature. (2)

IV. (a) Assign R and S configurations for the following molecules :

(i) 

(ii)  (1+1=2)

(b) Why boat-form of cyclohexane is less stable than chair form? (2)

SECTION – B

V. (a) What is Aromaticity? Mention criteria for Aromaticity with Huckle's Rule. (2)

(b) Discuss the resonance structure of benzene. (2)

VI. Discuss the following with mechanism :

(i) Chlorination of benzene. (1)

(ii) Nitration of benzene. (1)

(iii) Friedal Craft's Reaction. (2)

VII. (a) Explain Aryl halides are less reactive than alkyl halides. (2)

(b) How will you convert chlorobenzene into amino benzene? Write benzyne mechanism. (2)

VIII. (a) Differentiate between S_N^1 and S_N^2 reactions. (3)

(b) What is Wurtz reaction? Mention its limitations. (1)

SECTION – C

IX. (a) Mention cause of geometrical isomerism. (2)

(b) Define Resolution and write different methods of resolution. (2)

(c) Write a note of dehydrohalogenation of alkyl halides. (2)

(d) Write notes on :

(i) Fittig Reaction.

(ii) Ulmann Reaction. (2)

(e) How will you convert :

Benzene into m-nitro benzene explain with mechanism. (2)