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Total No. of Printed Pages: 1

Total No. of Questions: [09]

B. Sc. Non-Medical (Semester – 1st)
ORGANIC CHEMISTRY-I
Subject Code: BSNMS1104
Paper ID: [22131404]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a What is Clatherates?
- b Explain Effect of hydrogen bonding.
- c What are the difference between electrophiles and nucleophiles?
- d What is Ozonolysis reaction of alkenes?
- e Describe Synthesize alkane by Wurtz reaction.
- f Explain Baeyer's strain theory.
- g What is Huckel theory of Aromatic compounds?
- h What are the difference between isolated, conjugated and cumulated dienes?
- i What are isotope effects for determination of reaction mechanism?
- j How can be synthesize Benzene from Phenol?

Section – B

(5 marks each)

- Q2. Describe the inductive field effects with suitable examples. 5
- Q3. Explain mechanism of free radical halogenation of alkanes. 5
- Q4. What are Physical properties of alkane. 5
- Q5. Explain Corey- House reaction. 5
- Q6. (a) Write a note on acidity of alkynes. 3,2
- (b) Explain regioselectivity in alcohol dehydration.

Section – C

(10 marks each)

- Q7. Write note on- 4,3,3
- (a) Saytzeff rule (b) Markownikoff's rule (c) Diels-Alder reaction
- Q8. What are reactive intermediate? Explain Free radicals, carbenes, arynes and nitrenes 2,8
- Q9. Explain Electrophilic substitution reaction of aromatic compounds with the example of nitration and Friedel-Craft's reaction. 10