Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Sc (Non Medical) (2018 Batch) (Sem.–1)

ORGANIC CHEMISTRY

Subject Code : BSNM-101-18

Paper ID : [75742]

Time : 3 Hrs. Max. Marks : 50

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying ONE marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. a. Draw hybridized molecular orbitals of methane along with bond angles present among them.

   b. What are localized and delocalized bonds?

   c. What is activation energy of reaction?

   d. What is nitrene?

   e. Draw Fischer projection formula of D glyceraldehydes.

   f. What are gauche conformations in n-butane?

   g. What is saytzaff's rule?

   h. What is 1,2 addition in 1,3-butadiene

   i. What is isotope effect?

   j. Give the examples of two neutral electrophole.

SECTION-B

2. Briefly explain the concepts of aromaticity and resonance citing one example of each.

3. Compare enantiomer and diastereomer citing suitable examples.

4. What is Bayer's strain theory and give its limitations.

5. Describe regioselectivity in alcohol dehydration during alkene synthesis.

6. Describe the formation of heavy metal acetylides.

SECTION-C

7. What is reaction intermediate? Describe various types of reaction intermediate with special emphasis on their stability.

8. What is configuration? Describe various systems of specification of configuration.

9. Describe mechanism of formation of alcohol from alkenes by hydroboration-oxidation and oxymercuration- demercuration reactions.