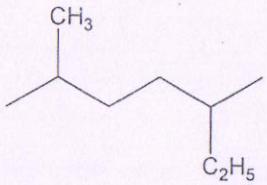
Pramukh Swami Science & H.D. Patel Arts College, Kadi

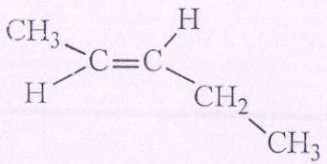
Bachelor of Vocation Pharmaceutical Chemistry Semester- II
Internal Examination, March-2019,
(PC-211) Fundamental of Organic Chemistry
Time: 2 hours 25/03/2019 Total Marks: 60

Que-1.Answer any 12 questions. Each question carries 1 mark [12]

1. IUPAC name of the given hydrocarbon is



   (a) 2-ethyl-5methylhexane
   (b) 5-ethyl-2methylhexane
   (c) 2, 5-dimethylheptane
   (d) 5-ethyl-2,5-dimethyl pentane
2. The IUPAC name of $CH_3OC_2H_5$ is
   (a) Ethyl methyl ether (b) Methoxyethane
   (c) Methyl ethyl ether (d) Ethoxymethane
3. What is hybridization?
4. Give the correct stereochemical name of following according to E, Z nomenclature system



5. What are bonding molecular orbitals?
6. What is hydrogen bond?
7. What is isomerism? Give its type.
8. Skew form among all confirmation isomer is more stable. (True/False)
9. _____ is polar compound. (BF_3/H_2O)
10. What is enantiomer?
11. Define- (i) Meso Compounds (ii) Racemic Mixture
12. What is metamerism?

Que.2.Answer any fivequestions. Each question carries 4marks [20]

1. Explain the structural and Chain Isomers.
2. Explain the Hydrogen bond and its type.
3. Explain Difference between Cis and Trans isomers.
4. What are configurational isomers?Explain the diastereomers with example.
5. Find the hybridization and Structure of (i) CH_4 (ii) NH_4^+
6. What is intermolecular force? Give the type.
7. What are the intermediates? Explain the type.

Que.3. Answer any fourquestions. Each question carries7 marks [28]

1. Explain the MOT for N_2.
2. Explain the difference between antibonding and bonding molecular orbitals.
3. Explain VBT in detail.
4. What is optical activity? Explain the R, S nomenclature with any one example.
5. Draw the structure of (i) Iso butane (ii) Neo-pentane
   (iii) 3-chloro-4-hydroxyoct-2-ene
6. Explain confirmation isomerism in ethane.