

Hemchandracharya North Gujarat University, Patan
Bachelor of Vocation
Pharmaceutical Chemistry Semester II
Mid SEM Examination, March 2017
Subject: PC- 211 Fundamentals of Organic Chemistry

Time: 2 hrs

Date: 21/03/2017

Marks: 60

Q.1 Answer any 12 questions. Each question carries 1 mark

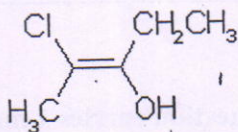
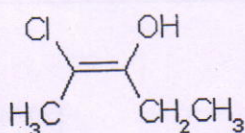
[12*1=12]

1. What is Stereo-chemistry?
2. How many stereoisomer draw in tartaric acid?
(i) 2 (ii) 3 (iii) 4 (iv) 1
3. Which conformer is most stable in ethane?
(i) Staggered (ii) Skew (iii) Eclipsed (iv) Both I & III
4. Is chiral compound optical active? (True/False)
5. The one rotation of staggered to eclipsed is _____.
6. Define chirality.
7. What is the % of s-character in sp^3 hybridization?
(i) 25 (ii) 50 (iii) 75 (iv) 33.33
8. Hydrogen bond is stronger bond than vander-waals force. (True/False)
9. The shape of p orbital is _____.
10. Which chemical bond present in Cl_2 molecule.
(i) H-bond (ii) dipole-dipole interaction
(iii) vander-waals force (iv) Covalent bond
11. What is Covalent bond?
12. Overlapping between two s-orbitals and to form σ (Sigma) bond. (True/False)
13. Define BMO.

Q.2 Answer any 5 questions. Each question carries 04 marks

[5*4=20]

1. What is isomer? Explained structural isomer with example.
2. Write a note on Erythro and Threo isomers.
3. Identify the E and Z configuration of following compounds.



4. Draw the conformer of n-butane.
5. Write a note on M.O. theory.
- ✓ 6. Write the difference between σ (Sigma) and π (Pi) bond.
7. Discuss the Bond dissociation energy.

Q.3 Answer any 4 questions. Each question carries 07 marks

[4*7=28]

1. Briefly describe the optical isomer.
2. Draw the conformer of cyclohexane with its energy graph.
3. Briefly explained enantiomers and diastereomer with suitable example.
- ✓ 4. What is intermolecular force? Explained its types with example.
- ✓ 5. What is hybridization? Write sp hybridization with example.
6. Write a note on Valence bond theory.

*****BEST OF LUCK*****