

Hemchandracharya North Gujarat University, Patan  
Bachelor of Vocation  
'Pharmaceutical Chemistry' Semester - II  
END TERM Examination, April, 2019  
Subject: Fundamental of Organic Chemistry (PC-211)

Time: 2 hrs

Date-25/04/2019

Maximum marks: 50

**Q.1 Answer any 9 questions. Each question carries 1 mark (9\*1=9Marks)**

1. Which of the following is the Paramagnetic-  
(a)  $N_2$  (b)  $O_2^{+2}$  (c)  $O_2$  (d)  $O_2^{-2}$
2. \_\_\_\_\_ is aromatic compound. (Toluene/Chloroform)
3. What is Enantiomers?
4. Find Hybridization of  $PCl_5$  and  $SF_6$ .
5. Alkane can be prepared by Kolbe's electrolysis. (True/False)
6. Which type of reactions are shown by Halo Alkanes:  
(a) Nucleophilic Addition Reaction (b) Electrophilic Addition Reaction  
(c) Nucleophilic Substitution Reaction (d) Electrophilic Substitution Reaction
7. \_\_\_\_\_ Catalyst is used in Wurtz reaction for alkane formation.
8. What are chiral carbons?
9. What is Hydrogen Bond?
10. Anti-bonding molecular orbitals are more stable than that of bonding molecular orbitals. (True/False)

**Q.2 answer any 5 questions. Each question carries 4 marks (5\*4=20 Marks)**

1. Explain the Conformational isomerism in Butane.
2. Explain the addition of HBr on  $CH_2=CH_2$ . (Markonikov's Rule)
3. Give any two preparation reaction of Benzene.
4. What is general formula of alkane? Explain Wurtz reaction of alkane preparation.
5. Explain Cis and Trans Isomerism with example.
6. Explain the Enantiomers with example.

**Q.3 Answer any 3 questions. The question carries 07 marks (3\*7=21 Marks)**

1. Explain difference between  $SN^1$  and  $SN^2$  reaction.
2. Explain MOT for  $N_2$  molecule.
3. Explain 'Intermolecular force' of attraction.
4. Explain Anti Markonikov's rule with example.