

Hemchandracharya North Gujarat University, Patan
Bachelor of Vocation
Pharmaceutical Chemistry Semester - III
End Term Examination, December, 2016
(PC-311) (Advance Organic Chemistry)

Time: 2 hrs

Date: 19/12/2016

Maximum marks: 50

Q.1 Answer any 9 questions. Each question carries 1 mark.

(9*1=9Marks)

1. Write the Hybridization in Methane.
2. Sigma bond is stronger bond than Pi bond. (True/False)
3. Draw the structure of NH_3 .
4. Define Steric Effect.
5. Which bond is delocalized in Hyper-conjugation? (Sigma or Pi Bond)
6. Give the three types of Pericyclic Reaction.
7. Give the reaction equation of Cope rearrangement.
8. Define Nucleophile.
9. SN^2 reaction gives Inversed Product. (True/False)
10. Which of the following is good Leaving group?
(i) Cl (ii) Br (iii) I (iv) F

Q.2 Answer any 5 questions. Each question carries 4 marks.

(5*4=20Marks)

1. What is bond energy? Explain all the factors which affecting on bond energy.
2. Briefly explained Intra-molecular bond with suitable example.
3. Draw the resonance structure of chloro benzene.
4. Explain sigma tropic reactions in brief.
5. Write down difference between SN^1 & SN^2 reaction.
6. Write the Saytzaff and Hoffman elimination rules.
7. Methyl amine is more basic than aniline.

Q.3 Answer any 3 question. Each question carries 7 marks.

(3*7=21Marks)

1. Explain Overlapping of Atomic orbitals.
2. Briefly explained factor affecting on Nucleophile substitution reaction.
3. Explain cyclo-addition reaction in detail.
4. Write the comparison between Elimination Reaction Vs Substitution Reaction.
5. Answer the Following question in brief.
(i) Inductive Effect
(ii) Explain chloro acetic acid is stronger acid compared to acetic acid.

Best of Luck