

Seat No: _____

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF PHARMACY
B.Pharm., Winter 2017-18 Examination

Semester: 3

Date: 11/12/2017

Subject Code: 08101201

Time: 02:00PM To 05:00PM

Subject Name: Pharmaceutical Chemistry III (Organic Chemistry-I)

Total Marks: 75

Instructions:

1. Figures to the right indicate full Marks.
2. Make suitable assumptions wherever necessary.

Q.1 Essay type Questions. (Any 2 out of 3) (10 Marks each) (20)

1. What is electrophilic aromatic substitution (EAS)? Explain Friedel Crafts reactions.
2. What is racemic mixture? List out various methods of resolution. Explain any one in detail.
3. Explain in detail about reactive intermediates:
 - a. Carbanion
 - b. Free radicals

Q.2 Short Essay type Questions. (Any 7 out of 9) (5 Marks each) (35)

1. What is hyperconjugation? List out types of it. Explain any one in detail.
2. Explain phase transfer catalysis (PTC) with mechanism.
3. Write a note on molecular orbital theory.
4. Explain orientation and reactivity of nucleophilic aromatic substitution?
5. Explain CIP rules to assign the absolute configuration.
6. Write a note on carbenes.
7. Give Haworth synthesis of Naphthalene and any three chemical reactions of naphthalene.
8. Write a note on stereochemistry of allenes.
9. Give a detail note on resonance.

Q.3 Answer in short. (2 Marks each) (20)

1. Differentiate ionic bonds and covalent bonds.
2. Define electrophiles and nucleophiles with examples.
3. List out various types of reactions.
4. Define bonding and antibonding orbitals.
5. Explain Wolf-Kishner reduction reaction.
6. Explain polar protic and polar aprotic solvents.
7. Explain polarity of bonds and polarity of molecules.
8. Explain different types of conformations with one example.
9. What are arenes? Explain it with one example.
10. Explain working principle of polarimeter.