

PARUL UNIVERSITY
FACULTY OF PHARMACY
B.Pharm. Winter 2019-20 Examination

Semester: 3**Subject Code: 08101201****Subject Name: Pharmaceutical Chemistry-III (Organic Chemistry-I)****Date: 19/11/2019****Time: 02:00pm to 05:00pm****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. Write electrophilic aromatic substitution reaction of benzene.
2. Discuss resonance, hyperconjugation, steric effect with suitable examples.
3. Explain enantiomers and diastereomers with examples. Explain optical isomerism in meso Tartaric acid.

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

1. What is lewis acid and lewis base? Discuss pka and its significance.
2. What is intermolecular force? Describe the different types of intermolecular forces.
3. Explain oxidation and reduction reaction.
4. Explain briefly generation and application of carbocation.
5. Explain Geometrical isomers.
6. Write preparation of Polynuclear hydrocarbons.
7. Discuss Hybridization with examples.
8. Explain free radical addition reaction.
9. Write a detail on Huckel's rule of aromaticity.

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

1. What are Nucleophiles and Electrophiles?
2. Explain polarity of molecules.
3. Define spiran with example.
4. What is carbenes?
5. Define Allene. Write two examples.
6. Write about Ionic bond and covalent bond.
7. Write preparation of arenes by Wurzt fitting reaction.
8. How can you prepare styrene from ethylbenzene?
9. Write structure of 2-naphthol and 2,4-dichlorotoluene.
10. Write on Phase transfer catalysis.