

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc., Summer 2018-19 Examination

Semester: 2
Subject Code: 11205151
Subject Name: Organic Chemistry-II

Date: 01/04/2019
Time: 10:30am To 01:00pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Write in detail. (Each of 04 marks) (08)**
(a). What is asymmetric synthesis? Explain with examples and applications.
(b). Describe the synthesis of organic compounds with 3- and 6-membered ring formation
- Q.1. B) Answer the following questions (Any two) (04)**
(a) Write short answers. (Each of 02 marks)
1. What are chiral auxiliaries? Give examples.
2. Give Biomimetic synthesis. (Any one).
(b) Describe role of protecting groups in organic reactions. (Any two) (04)
(c) Describe Resolution in chiral compounds. (Any four). (04)
- Q.2. A) Answer the following questions. (04)**
(a) Write short answers. (Each of 02 marks) (04)
1. What are chiral catalysts? Give examples.
2. What are chiral ligands? Give examples.
(b) Give Chemoselective synthesis inorganic reactions. (Any four). (04)
- Q.2. B) Answer the following questions (Any two) (03)**
(a) Write a short note Tebbe reagent. (03)
(b) Describe Peterson's synthesis in detail. (03)
(c) Give chemical reactions involving any two modern oxidizing reagents. (03)
- Q.3. A) Write in detail. (Each of 04 marks) (08)**
(a). Give the chemical reactions with Grignard's reagents.
(b). Give the principle, preparation and use of Organosilicon compounds.
- Q.3. B) Answer the following questions (Any two) (04)**
(a) Write short answers. (Each of 02 marks) (04)
1. What is Baker's yeast? Give its applications.
2. Write the Structure and uses of Corey-Nicolaou reagent.
(b) Give the principle, preparation and use of Organoborane compounds. (04)
(c) Give the principle, preparation and use of Organopalladium compounds. (04)
- Q.4. A) Answer the following questions. (04)**
(a) **Write in detail. (Each of 04 marks) (04)**
1. Write the reaction mechanism and applications of Cannizzaro reaction.
2. Write the reaction mechanism and applications of Friedel-Craft's alkylation and acylation.
(b) Describe Reformatsky reaction with mechanism. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
(a) Explain Dieckmann reaction mechanism. (03)
(b) Give reactions only for Benzoin condensation and Robinson annulations. (03)
(c) Write the reactions only for Perkin reaction and Stobbe condensation. (03)