

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc., Winter 2017-18 Examination

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

Date: 03-01-2018
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) Do as directed (4x2) (Each of 04 marks) (08)**
 (a) Draw Frost circle diagrams for Cycloheptatriene & Benzene.
 (b) Explain Huckle's rule with examples.
- Q.1. B) Answer the following questions (Any two) (04)**
(a) Do as directed
 1. Explain meso compounds with example..
 2. Describe the optical activity of meso compounds.
 (b) Explain crown ethers along with their application. (04)
 (c) Write a short note on Fullerenes. (04)
- Q.2. A) Answer the following questions. (04)**
(a) Do as directed
 1. Explain structure of Phenanthrene.
 2. Describe methods used to resolve a racemic mixture.
 (b) Explain DNA. (04)
- Q.2. B) Answer the following questions (Any two) (03)**
 (a) Classify following compounds either Aromatic, Nonaromatic or Antiaromatic.
 1. Cyclopentadiene
 2. Tropylium ion
 3. Cycloocta tetraene
 (b) What are Stereo isomers? (03)
 (c) What is optical activity? Write necessary condition for compound to be optically active. (03)
- Q.3. A) Write a note on (4x2) (Each of 04 marks) (08)**
 (a) Perkin reaction
 (b) Wittig rearrangement
- Q.3. B) Answer the following questions (Any two) (04)**
(a) Write a note on (4x2) (Each of 04 marks)
 1. Nitration of Pyrrole
 2. Mercuration of furan
 (b) Discuss Cannizzaro Reaction (04)
 (c) Discuss Reformatsky's Reaction (04)
- Q.4. A) Answer the following questions. (04)**
(a) Do as directed
 1. What are Hetrocyclic compounds?
 2. Write structures of Quinoline & Indole.
 (b) Write structures and synthesis of Pyrrole & Furan. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
 (a) Classify the following as Chiral or Achiral (03)
 1. Hands
 2. Chair
 3. Cup
 (b) Explain one method of synthesis of Thiazole. (03)
 (c) What happens when Acetylene is treated with Hydrogen Cyanide? (03)