

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
B.Sc. Summer 2017-18 Examination

Semester: 3
Subject Code: 11100201
Subject Name: Chemistry-III

Date: 22/05/2018
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) Answer the following questions (Each of 04 marks) (08)**
(a) Write electronic configuration of s block elements.
(b) Explain how XeF₂ is prepared in laboratory.
- Q.1. B) Answer the following questions (Any two)**
(a) Explain Dehydration of alcohol with 3 step mechanism. (04)
(b) Write electronic configuration of noble gas. (04)
(c) Write classification of Dienes with suitable example of each. (04)
- Q.2. A) Answer the following questions.**
(a) State Saytzeff Rule. Give reaction based on it. (04)
(b) State Markovnikov's Rule. Give one reaction of it. (04)
- Q.2. B) Answer the following questions (Any two)**
(a) Write structural formula for (Each of 01 marks) (03)
1. Penta-1,3-diene
2. 1,3-dibromopentane
3. Cyclohexene
(b) Write hydrogenation of XeF₂ (03)
(c) Explain structure of Benzene. (03)
- Q.3. A) Answer the following questions (Each of 04 marks) (08)**
(a) Write reaction of Friedal-crafts alkylation and acylation.
(b) Write nitration of Benzene.
- Q.3. B) Answer the following questions (Any two)**
(a) Convert: Benzene to Benzene sulfonic acid . (04)
(b) What is full form of TNT? Write its structure and mention its use? (04)
(c) Explain Diels-Alder reaction giving suitable reaction. (04)
- Q.4. A) Answer the following questions.**
(a) What is Grignard reagent? What do you get when water is added to Grignard reagent? (04)
(b) What is peroxide effect? Write reaction showing this effect? (04)
- Q.4. B) Answer the following questions (Any two)**
(a) Write structure of o-, m- and p- xylene. (03)
(b) Explain aromaticity in Anthracene. (03)
(c) Convert Benzene to cyclohexane. (03)