

C. U. SHAH UNIVERSITY

Winter Examination-2022

Subject Name: Organic Chemistry - I

Subject Code: 4SC03OCH1

Branch: B.Sc. (Chemistry)

Semester: 3

Date: 22/11/2022

Time: 11:00 To 02:00

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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Q-1 Attempt the following questions: (14)

- Define bond.
- Define Hybridization.
- Write the name of any two strong acids.
- What is conjugation.
- Write the full name of IUPAC.
- Define heterocyclic chemistry.
- Define carboxylic chemistry.
- Draw the structure of pyrrole.
- Define condensation.
- What do you mean by hydrolysis.
- Draw the structure of thiophene.
- Write the name of two primary amines.
- Draw the reaction Nitrobenzene from Benzene.
- What is electrophilic reaction?

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions (14)

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|---|--------------------------------------|----|
| A | Discuss the Huckel's rule. | 05 |
| B | Discuss the stability of carbocation | 05 |
| C | Write a note on | 04 |
| | a) Inductive effect | |
| | b) Resonance effect | |

Q-3 Attempt all questions (14)

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|---|--|----|
| A | Discuss the classification of substituent group. | 05 |
| B | Explain effect of substituent group. | 05 |
| C | Write a note on | 04 |



- a) Friedal-crafts alkylolation
b) Acylation
- Q-4** **Attempt all questions** **(14)**
A Discuss Hell Volhard Zelinsky reaction with mechanism. **07**
B Write short notes on: **07**
 a) Cannizaro reaction
 b) Wittig reaction
- Q-5** **Attempt all questions** **(14)**
A Write short notes on: **07**
 a) Knorr synthesis,
 b) Paal-knorr synthesis
B Discuss Hantzsch synthesis with applications. **07**
- Q-6** **Attempt all questions** **(14)**
A Discuss the Aldol condensation with examples. **07**
B Discuss the Fiest Benary reaction. **07**
- Q-7** **Attempt all questions** **(14)**
A Discuss chemical reactions of pyrrole. **07**
B Write short notes on: **07**
 a) Synthesis of furan
 b) Kohlrausch law.
- Q-8** **Attempt all questions** **(14)**
A Discuss synthesis and properties on thiophene. **07**
B Write a note on physical and chemical properties of mono carboxylic acids. **07**

