

Shree M. P. Shah Arts and Science College, Surendranagar

B.Sc. Sem-4 Chemistry - Assignment-1 - 2019/20

Q:1 Answer the following questions in short. (02 marks).

- 1 What are Organometallic compounds? Give its example.
- 2 Discuss the role of Mg in chlorophyll.

Q:2 Answer the following questions in brief. (03 marks).

- 1 Give the use of Grignard reagent in preparation of 1⁰, 2⁰ and 3⁰ alcohol.
- 2 Discuss the toxic effect of arsenic.

Q:3 Answer the following questions in detail. (05 marks).

- 1 Explain the preparation and application of Organolithium compounds.
- 2 Describe the structure and role of chlorophyll.

Date of Submission: On First Internal Exam Date

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B.Sc. Sem-4 Chemistry - Assignment-2 - 2019/20

Q:1 Answer the following questions in short. (02 marks).

- 1 Write any six uses of noble gases.
- 2 Explain keto-enol tautomerism with example.

Q:2 Answer the following questions in brief. (03 marks).

- 1 Explain structure and hybridisation of XeF₄.
- 2 Give preparation of acetyl acetone from EAA.

Q:3 Answer the following questions in detail. (05 marks).

- 1 Explain hybridization, structure and chemical properties of XeO₂F₂.
- 2 Explain Claisen condensation with mechanism for synthesis of EAA.

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B.Sc. Sem-4 Chemistry - Assignment-3 - 2019/20

Q:1 Answer the following questions in short. (02 marks).

- 1 Give the oxidation reaction of 1^o and 2^o alcohol.
- 2 Explain acidity of carboxylic acid.

Q:2 Answer the following questions in brief. (03 marks).

- 1 Explain Wolf Kishner and Clemenson reduction of aldehyde.
- 2 Discuss any three method of preparation of monocarboxylic acids.

Q:3 Answer the following questions in detail. (05 marks).

- 1 Explain addition reaction of aldehyde and ketone with alcohol.
- 2 Discuss chemical property of monocarboxylic acids.

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B.Sc. Sem-4 Chemistry - Assignment-4 - 2019/20

Q:1 Answer the following questions in short. (02 marks).

- 1 Define Parachor. Write equation showing relation between Parachor and molecular volume of liquid.
- 2 Explain Zeroth law of thermodynamics.

Q:2 Answer the following questions in brief. (03 marks).

- 1 Define relationship between pressure and volume for adiabatic process of ideal gas.
- 2 Explain Aldol Condensation with mechanism.

Q:3 Answer the following questions in detail. (05 marks).

- 1 Explain Beckmann rearrangement with mechanism.
- 2 Derive $C_p - C_v = R$.

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