

S.Y.B.SC. SEM – III (2014 COURSE) : SUMMER - 2018
SUBJECT: CHEMISTRY: ORGANIC & INORGANIC CHEMISTRY - III

Day: **Saturday**
Date: **21/04/2018**

S-2018-0711

Time: **12.00 NOON TO 02.00 PM**
Max. Marks: 40

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SAME** answer book.

SECTION-I

Q.1 Attempt any **TWO** of the following: **(10)**

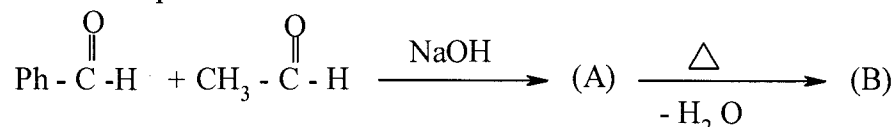
- a) What is saytzeff and Hofmann elimination? Illustrate with suitable examples.
- b) Give skraup synthesis of quinoline.
- c) Draw chair and boat conformations of cyclohexane. Indicate clearly the:
i) Eclipsing and ii) Flag pole interaction in the molecule.

Q.2 Attempt any **ONE** of the following: **(05)**

- a) What is the action of following on pyridine?
i) $\text{KNO}_3 / \text{H}_2\text{SO}_4$ ii) H_2 / Pd
- b) Describe any one method for preparation of epoxide. Explain the effect of acidic and basic reagents on epoxide.

Q.3 Attempt any **TWO** of the following: **(05)**

- a) What is the action of following reagents on diethyl ether?
i) Hot HI ii) Cold HI.
- b) What is homolysis and hetrolysis?
- c) Predict the products:



SECTION-II

Q.4 Attempt any **TWO** of the following: **(10)**

- a) Why d- block elements are called transition elements? Give their general properties.
- b) Explain the process of 'Calcination' in metallurgy with suitable example.
- c) Discuss biological role of Iron.

Q.5 Attempt any **ONE** of the following: **(05)**

- a) Explain 'Baeyer's process' for purification of aluminum from bauxite.
- b) Write a note on 'Complex formation ability' of d- block elements.

Q.6 Attempt any **TWO** of the following: **(05)**

- a) Explain Electrostatic Separation method in metallurgy.
- b) Write applications of aluminum metal in various fields.
- c) Explain in brief biological role of Calcium and magnesium.

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