F.Y.B.PHARM. SEMESTER-II (CBCS - 2015 Course) : SUMMER - 2019

SUBJECT : PHARMACEUTICAL CHEMISTRY – IV (ORGANIC)

Day : Saturday
Date : 27/04/2019

S-2019-4377

Time : 10.00 A.M. TO 01.00 P.M.
Max. Marks : 60

N.B.:

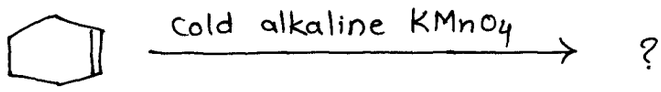
1) **Q. No.1** and **Q.No.5** are **COMPULSORY**. Out of the remaining questions attempt **ANY TWO** questions from each section.
2) Answers to both the sections should be written in **SEPARATE** answer books.
3) Figures to the right indicate **FULL** marks.

SECTION – I

Q.1 Answer **any FIVE** of the following. **(10)**

a. What happens when alkenes are treated with water?

b. Predict the product:



c. How epoxide is obtained from alkenes?

d. Explain with example: aldehydes and ketones have lower boiling points than alcohols and carboxylic acids of comparable molecular weights.

e. What product is obtained from Stephens reduction of nitrile?

f. What is Wolf-Kishner reduction of aldehydes?

g. What is Haloform reaction?

Q.2 **a.** Give oxidation of alkenes in presence of ozone with mechanism. **(05)**

b. Give oxidative degradation of alkenes in presence of chromic acid. **(05)**

Q.3 Give reactions of aldehyde with following reagents. **(10)**

1) Hydroxylamine
2) Grignard reagent
3) Hydrazine & KOH
4) Sodium cyanide
5) Alcohol

Q.4 Write short notes on **(any TWO)** **(10)**

a. Peroxide effect

b. Alkylation of alkenes

c. Reformatski reaction

d. Oxymercuration-Demercuration

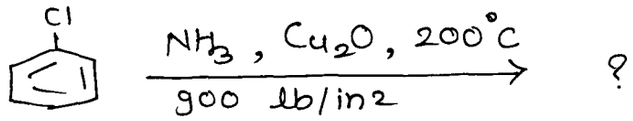
P.T.O.

SECTION – II

Q.5 Answer **any FIVE** of the following. **(10)**

a. How aniline is obtained from nitrobenzene?

b. Predict the product:



c. How amines are obtained from carboxylic acids?

d. Give oxidation of amines in presence of $KMnO_4$.

e. What happens when phenol is treated with bromide in presence of CS_2 at $0^{\circ}C$?

f. What is Reimer-Tiemann reaction?

g. How phenolphthalein is obtained from phenol?

Q.6 **a.** Give method of preparation of carboxylic acids. **(07)**

b. What is reductive amination? **(03)**

Q.7 **a.** Define, classify and give mechanism of elimination reaction. **(08)**

b. What is Gabriel phthalimide synthesis? **(02)**

Q.8 Write short notes on **(any TWO)** **(10)**

a. Saytzeff orientation

b. Esterification reaction

c. Preparation of phenols

d. Hinsberg reaction

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