

F.Y.B.PHARM. SEMESTER-II (CBCS - 2015 Course) : WINTER - 2018

SUBJECT: PHARMACEUTICAL CHEMISTRY – IV (Organic)

Day: Thursday  
Date: 15/11/2018

W-2018-4068

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

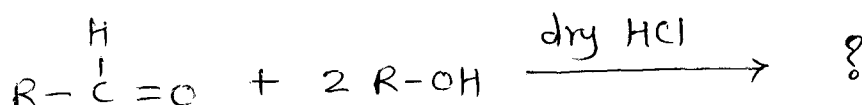
**N.B.:**

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

**SECTION-I**

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

- a) What is Wolf-Kishner reduction?
- b) Predict the product:



- c) What is formalin? How it is obtained?
- d) Why addition of HCl and HI to alkenes do not give anti-Markovnikov product?
- e) What happens when alkenes are treated with Boranes?
- f) What is Haloform reaction of aldehyde?
- g) What is 'hemiacetal'? How it is formed?

**Q.2** Give methods of preparation of aldehydes and ketones. **(10)**

**Q.3** a) What is Oxidative degradation of alkenes? **(05)**  
b) What happens when alkenes are treated with ozone? Explain with mechanism. **(05)**

**Q.4** Write short notes on any **TWO** of the following: **(10)**

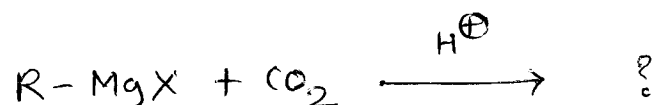
- a) Michael condensation
- b) Epoxidation
- c) Knoevenagel condensation
- d) Markovnikov addition

**P. T. O.**

## SECTION-II

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

- a) How p-bromo aniline is obtained from aniline?
- b) What is Schotten –Baumann reaction?
- c) How vinegar is obtained industrially?
- d) Predict the product:



- e) Give the structure of Caprylic acid and Palmitic acid.
- f) Boiling point of acetic acid (MW = 60) is higher than propanol (MW= 60). Explain.
- g) What is Koch reaction?

**Q.6** Give reactions of phenols in detail. **(10)**

**Q.7 a)** What is Hofmann orientation in Elimination reaction? **(05)**

**b)** What is Hinsberg method of separation of amines? **(05)**

**Q.8** Write short notes on any **TWO** of the following: **(10)**

- a) Esterification Reaction
- b) Reductive amination
- c) Hofmann Rearrangement
- d) E<sub>1</sub> and E<sub>2</sub> mechanism

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