

S.Y.B.PHARM. SEMESTER-III (CBCS - 2015 COURSE) :

SUMMER - 2018

SUBJECT: PHARMACEUTICAL CHEMISTRY-V (ORGANIC)

Day : Friday
Date : 20/04/2018

S-2018-3915

Time: 02.00 PM TO 05.00 PM
Max. Marks: 60

N.B.:

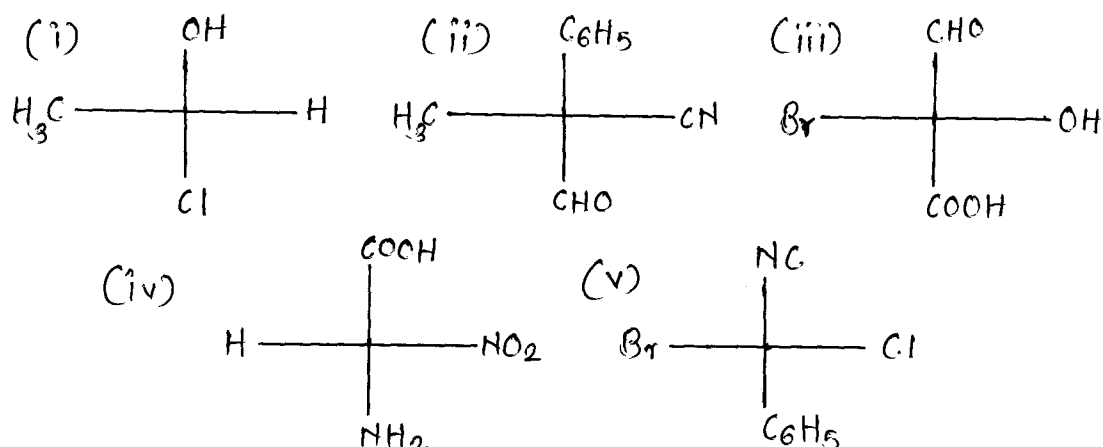
- 1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of the remaining attempt any **TWO** questions from each section.
- 2) Both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the **RIGHT** indicate full marks.

SECTION-I

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

- a) Why racemic mixtures are optically neutral?
- b) Enlist the conditions of optical activity.
- c) Draw schematic diagram of polarimeter.
- d) What are Z and E isomers?
- e) Define and explain with example of enantiomer.
- f) Enlist the methods of racemic mixture preparation.

Q.2 Assign R & S configuration to following structures with reasons:



Q.3 a) Draw the structure and show possible conformers using various projection formulae.

(i) 2-Bromobutane (ii) iso-Propylalcohol (iii) Ethylalcohol

b) Comment on stability of free radicals.

Q.4 Write note on any **TWO** of the following:

- a) Schmidt's reaction
- b) Mannich reaction
- c) Gabriel synthesis.

P.T.O.

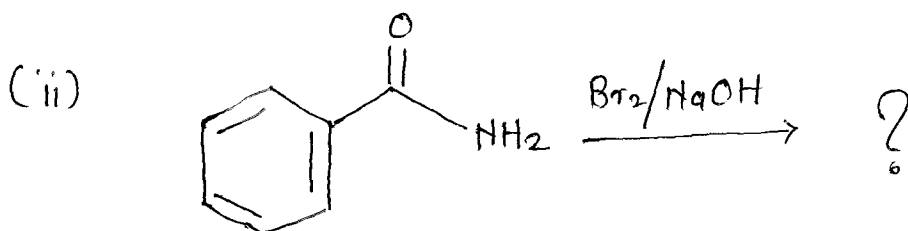
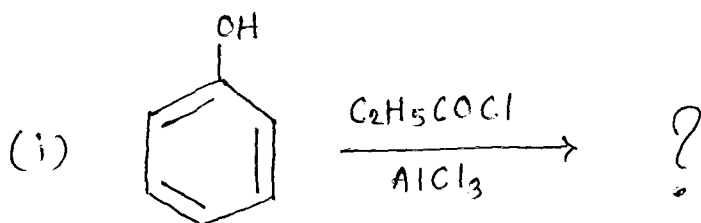
SECTION-II

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

- a) Explain how amines can be generated by Lossen rearrangement.
- b) What is role of H_2O_2 in Baeyer-Villiger oxidation?
- c) What is limitation of Dakin oxidation?
- d) Explain how diazoketones converted in carboxylic acid in Wolff rearrangement.
- e) Name the rearrangement reactions which follows through isocyanate intermediate.
- f) What is role of acids in Pinacol-Pincolone rearrangement?

Q.6 Explain in detail mechanism orientation and stereochemistry for Hofmann and Schmidt rearrangement.

Q.7 a) Complete the reaction and explain the mechanism.



b) How α -hydroxy carboxylic acids generated from 1,2-diketones.

Q.8 Write note on any **TWO** of the following:

- a) Favorskii rearrangement
- b) Beckmann rearrangement
- c) Wittig rearrangement

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