

**S.Y.B.PHARM. SEMESTER-III (CBCS - 2015 COURSE) :  
WINTER - 2017**

**SUBJECT: PHARMACEUTICAL CHEMISTRY-V (ORGANIC)**

Day **Wednesday**  
Date **08/11/2017**

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

**W-2017-3788**

**N.B.:**

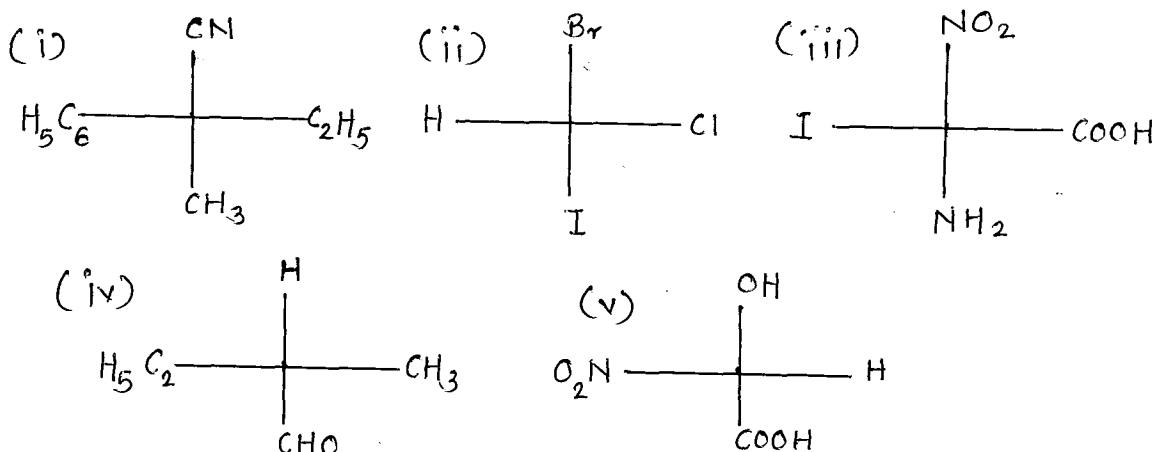
- 1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of the remaining attempt any **TWO** questions from each section.
- 2) Both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the **RIGHT** indicate full marks.

**SECTION-I**

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

- a) What are diastereomers? Explain with example.
- b) What is role of symmetry in optical activity?
- c) What is geometrical isomerism?
- d) Enlist the methods of resolution of racemic mixtures.
- e) How polarimeter work? Explain with diagram.
- f) What are *meso* compounds?

**Q.2** Assign R & S configuration to following structure with reasons.



- Q.3**
- a) Draw the structure and show possible conformers using various projection formulae.  
(i) n-Butane    (ii) 2-Methyl-1-butanol    (iii) 2-Bromo-3-chlorobutane
  - b) Give the methods of generation of free radicals.
- Q.4** Write note on any **TWO** of the following:
- a) Malonic ester synthesis
  - b) Perkin reaction
  - c) Kolbe synthesis.

**P.T.O.**

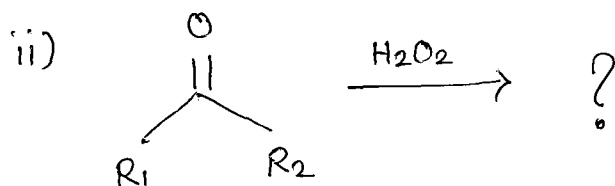
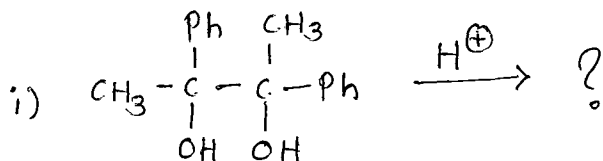
## SECTION-II

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

- a) What is role of sodium hypobromide in Hofmann rearrangement?
- b) Name the rearrangements which results into amines as final products.
- c) What is role of strong base in Wittig rearrangement?
- d) What is the similarity between Claisen and Cope rearrangement?
- e) How Anthranilic acid is prepared? Explain synthesis and rearrangement involved.
- f) How  $\alpha$ -aminoketones generated by Neber rearrangement?

**Q.6** Explain in detail mechanism orientation and stereochemistry for Benzilic acid, Beckmann rearrangement.

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



b) Phenols converted to esters in Fries rearrangement; Explain.

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

- a) Wolf rearrangement
- b) Pinacol rearrangement
- c) Wagner – Merewin rearrangement

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