

SUBJECT : PHARMACEUTICAL CHEMISTRY – V (ORGANIC)

Day : Monday
Date : 22/04/2019

S-2019-4382

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 questions attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Use of non-programmable electronic pocket **CALCULATOR** is allowed.
- 4) Figures to the right indicate **FULL** marks.

SECTION – I

Q.1 Attempt **ANY FIVE** of the following: [10]

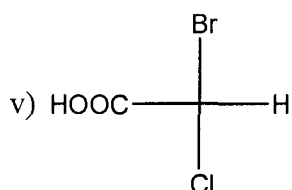
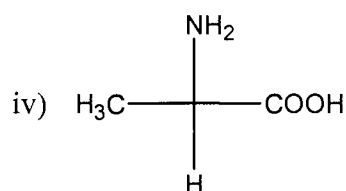
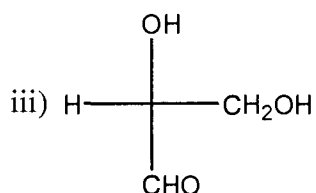
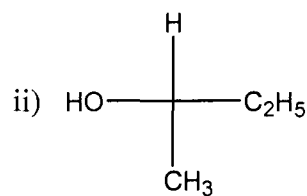
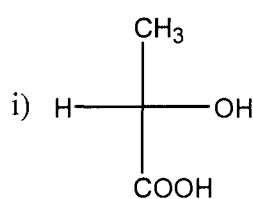
- a) What are meso compounds? Explain with example.
- b) Enlist the conditions of optical activity.
- c) Draw Newmann projection for 2-bromo-1-chlorobutane.
- d) Explain use of dihalide in malonic ester synthesis.
- e) Why iodine do not give free radical reaction?
- f) What is role of strong acid in Schmidt reaction?

Q.2 Write an elaborative note on preparation methods, properties and methods of [10]
resolution of racemic mixtures.

Q.3 a) Draw structure and show possible conformers using various projection [05]
formulae (**ANY TWO**):

- i) Ethyl alcohol ii) 2-bromobutane iii) Iso-propyl alcohol

b) Assign the R & S configuration to following with justification: [05]



P.T.O.

Q.4 Write short notes on **ANY TWO** of the following: [10]

- a) Kolbe synthesis
- b) Geometrical isomerism
- c) Gabriel synthesis

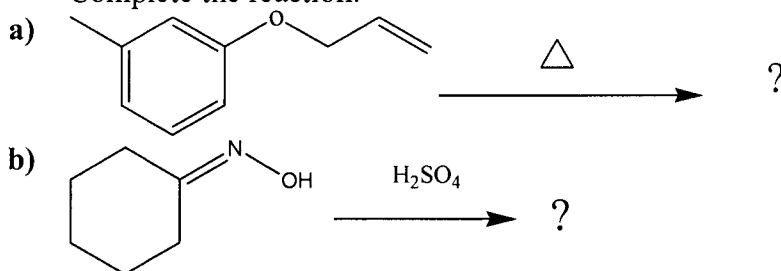
SECTION – II

Q.5 Attempt **ANY FIVE** of the following: [10]

- a) Give synthesis and reaction of phenanthrene.
- b) How Curtius rearrangement follow reaction of configuration?
- c) Why N-methylacetamide not give Hofmann rearrangement?
- d) Write in short stereochemistry in Beckmann.
- e) What is Sommelet rearrangement?
- f) How will you convert phthalimide into anthranilic acid?

Q.6 Explain in detail mechanism orientation of stereochemistry for Fries and Claisen rearrangement. [10]

Q.7 Complete the reaction: [10]



Q.8 Write short notes on **ANY TWO** of the following: [10]

- a) Benzilic acid rearrangement
- b) Wagner – Merewin rearrangement
- c) Cope rearrangement

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