

BACHELOR OF PHARMACY (B. PHARM.) (CBCS-2019 COURSE)
B. Pharm. Sem-III : WINTER : 2021
SUBJECT: PHARMACEUTICAL ORGANIC CHEMISTRY-II

Day : Monday
Date : 10-01-2022

W-20666-2021

Time : 02:00 PM-05:00 PM
Max. Marks: 75

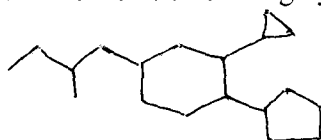
N. B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answer to each section should be written in **SEPARATE** answer books.

SECTION -I

Q. 1 Answer all questions: **(20)**

- a) Draw orbital picture of benzene.
- b) Explain : o-nitrophenol is less water soluble than p-nitrophenol.
- c) Explain effect of substitution on acidity of phenol.
- d) Why o-hydroxy benzoic acid is more acidic than p-hydroxy benzoic acid?
- e) What is angle of compression in cycloalkanes?
- f) Why aromatic amines are considerably weaker bases than aliphatic amines?
- g) Differentiate between aromatic and non-aromatic compounds.
- h) Give IUPAC name of following cycloalkane.



- i) Differentiate between oils and fats.
- j) Draw energy profile diagram of the interconversions of cyclohexane conformations.

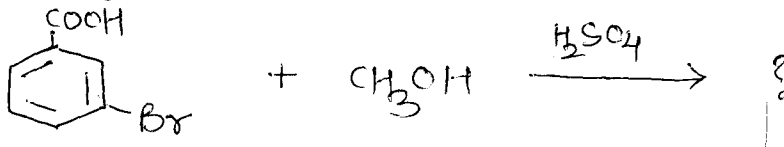
Q. 2 Answer **ANY TWO** of the following: **(20)**

- a) What is aromaticity? Explain four rules of aromaticity with suitable examples.
- b) Give any ten reactions of phenols.
- c) Explain different electrophilic substitution reactions of naphthalene. Why naphthalene undergoes electrophilic substitution at α position only?

SECTION -II

Q. 3 Answer **ANY SEVEN** of the following: **(35)**

- a) Give methods of preparation of benzene.
- b) Explain the effect of substituent on the basicity of aromatic amines.
- c) Predict the product. Give mechanism of the reaction.



- d) Define and classify lipids in detail with examples.
- e) Explain in detail determination of saponification value.
- f) Give methods of preparation and reactions of Cyclopropane and Cyclobutane.
- g) Explain Coulson-Moffit model and Mohr's theory of cycloalkanes.
- h) Give different methods of synthesis of anthracene.
- i) Write structure and uses of DDT and BHC.

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