BACHELOR OF PHARMACY (B. PHARM.) (CBCS-2019 COURSE)
B. Pharm. Sem-III :SUMMER- 2022
SUBJECT : PHARMACEUTICAL ORGANIC CHEMISTRY-II (THEORY)

Day : Monday | Time : 02:00 PM-05:00 PM
Date : 11/7/2022 | **S-20666-2022** | Max. Marks : 75

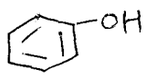
N. B. :

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

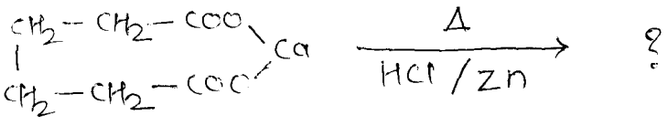
~~SECTION –I~~

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

a) Compare alkene and benzene with respect to electrophilic attack at double bond.
b) Draw structure of [14]-annulene and [18]-annulene.
c) Write resonating structures of the following compound.



d) Give important uses of benzoic acid.
e) Explain which is more acidic, phenol or benzoic acid?
f) Predict the product.



g) Give examples of aromatic and anti-aromatic compounds.
h) Which formula is used to calculate the internal bond angle in cycloalkanes?
i) Classify polynuclear hydrocarbons with suitable examples.
j) Draw orbital picture of benzene.

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

a) Give different reactions of benzene.
b) Discuss Bayer's angle strain theory using orbital picture of covalent bond in cycloalkanes.
c) Write different method of preparation and reactions of phenanthrene.

SECTION –II

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

a) Explain Huckel's rule of aromaticity with suitable example.
b) Give method of preparation of phenols.
c) Explain effect of substituents on acidity of aromatic carboxylic acids.
d) What are fatty acids? Write a note on their nomenclature.
e) Explain different conformations of cyclohexane.
f) Describe with example hydrogenation and hydrolytic reactions of oils.
g) Write structure and uses of Saccharin and Chloramine.
h) Explain resonance energy of benzene with the help of heat of hydrogenation of cyclohexene.
i) Give methods of preparation and reactions of diphenylmethane.

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