

SUPPLEMENTARY
DOCTOR OF PHARMACY
First Year Pharm. D. :SUMMER- 2022
SUBJECT : PHARMACEUTICAL ORGANIC CHEMISTRY

Day : Monday

Time : 10:00 AM-01:00 PM

Date : 19-09-2022

S-5727-2022

Max. Marks : 70

N.B.

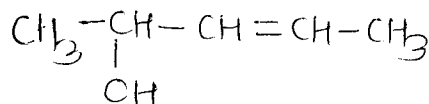
- 1) **Q.No. 1 and Q.No. 5** are **COMPULSORY**. Out of the remaining questions attempt **ANY TWO** questions from each section.
- 2) Answers to both sections should be written in **SEPARATE** answer book.
- 3) Figures to the **RIGHT** indicate **FULL** marks.

SECTION - I

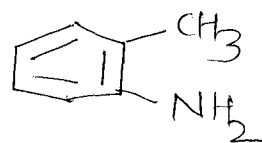
Q.1 A) Answer **ANY FOUR** of the following. **(08)**

- i) What is Isovalent Hyperconjugation?
- ii) Give IUPAC names of following compounds.

a)



b)

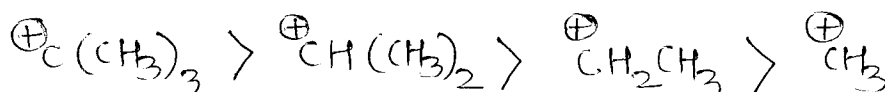


- iii) Give structure and medicinal uses of benzyl benzoate.
- iv) What is Fries rearrangement?
- v) Explain Lowry Bronsted theory of acids and bases.

B) Explain Reformatski reaction with suitable example. **(03)**

Q.2 Give reaction, mechanism, kinetics, stereochemistry, steric hindrance and role of solvents in S_N1 reaction. **(12)**

Q.3 a) Explain stability order in the following Carbocations. **(07)**



b) Give reaction and mechanism involved in Hofmann Rearrangement. **(05)**

Q.4 Write short notes on **ANY THREE** of the following. **(12)**

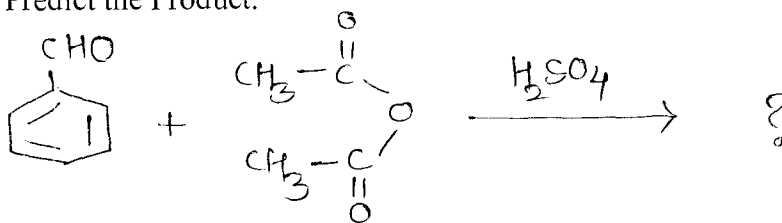
- a) Cannizzaro reaction
- b) Michael addition
- c) Diazotization reaction
- d) Saytzeff orientation

P.T.O.

SECTION - II

Q.5 A) Answer **ANY FOUR** of the following. (08)

- i) How salicylic acid is obtained from phenol?
- ii) Predict the Product.



- iii) Explain polarity of molecules.
- iv) What is α -elimination reaction?
- v) Explain different intermolecular forces.

B) What is Reimer-Tiemann's reaction? (03)

Q.6 a) What product is obtained when asymmetric alkenes are treated with HBr in presence of peroxides? Explain with mechanism. (07)

b) What is resonance? Explain Lewis dash-dot method of writing resonance. (05)

Q.7 a) Define and classify Isomerism. Explain Geometric isomerism with suitable examples. (07)

b) Explain benzoin condensation with mechanism. (05)

Q.8 Write short notes on **ANY THREE** of the following. (12)

- a) Aldol condensation
- b) Melting point
- c) Baeyer strain theory
- d) Wittig reaction
