BACHELOR OF PHARMACY (B. PHARM.) (CBCS-2019 COURSE)
B. Pharm. Sem-IV :SUMMER- 2022
SUBJECT : MEDICINAL CHEMISTRY-I

Day : Wednesday
Date : 17-08-2022

S-20671-2022

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

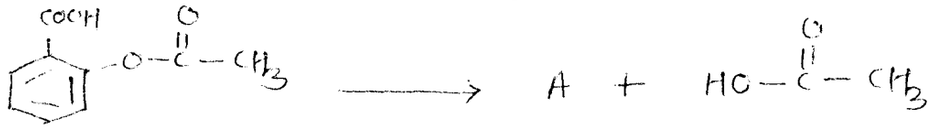
N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION-I

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

a) Define Biotransformation and Xenobiotics.
b) Predict 'A' in the following hydrolysis of Aspirin.



c) Define Partition Co-efficient. Explain its importance in drug absorption.
d) Explain importance of chelates in medicine by giving suitable examples.
e) Give structure and chemical name of Tolazoline.
f) Describe binding of acetylcholine with muscarinic receptors.
g) Give structure and chemical name of Carbachol.
h) Give two examples of irreversible acetylcholinesterase inhibitors.
i) Give synthesis of Atropine.
j) Give structure and chemical name of Neostigmine.

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

a) Give synthesis of any two of the following drugs:
i) Propranolol ii) Tolazoline iii) Phenylephrine
b) Explain biosynthesis and catabolism of acetylcholine.
c) Explain SAR of sympathomimetic agents with suitable examples.

SECTION-II

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

a) Give classification of sedative hypnotics with their structures. Discuss chemistry of barbiturates.
b) Explain SAR and MOA of Phenothiazines.
c) Give scheme of synthesis of Halothane and Mefenamic acid.
d) Explain SAR and MOA of benzodiazepine derivatives as an anticonvulsant agents.
e) Classify general anesthetics with their structure. Discuss chemistry of Inhalation anesthetics.
f) Explain the chemistry of fluro buterophenone derivatives. Outline scheme of synthesis of Chlorpromazine.
g) Discuss the chemistry of Narcotic antagonist.
h) Classify anti-inflammatory agents with their structure. Outline synthesis of Ibuprofen.
i) Discuss the chemistry of opioid receptors with their agonist and antagonist.

* * * *