

**A-881**

Total Pages : 3

Roll No. ....

**MSCCH-608**

**M.Sc. CHEMISTRY (MSCCH)**

**(Medicinal Chemistry)**

4th Semester Examination, 2024 (June)

Time : 2:00 Hrs.

Max. Marks : 70

**Note :-** This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. *Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

**Section-A**

**Long Answer Type Questions**      2×19=38

**Note :-** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

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P.T.O.

1. Discuss the following :
  - (a) Role of pharmacokinetics in drug design
  - (b) Structure-activity relationship used in drug design
2. Explain the different routes enable the passage of drugs through membranes.
3. What is an antineoplastic agent ? Discuss its types in details with suitable example.
4. Gives the synthesis of the following drugs
  - (a) Melaphalan
  - (b) Mercaptopurine
5. What is Cardiovascular Diseases ? Which drugs are used for Cardiovascular Diseases ? Explain in details.

### **Section–B**

#### **Short Answer Type Questions**      4×8=32

**Note** :- Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. Discuss the absorption and distribution phase of pharmacokinetics.
2. Explain different factors that influence the pharmacokinetics of a drug.

3. Explain the role of antimetabolites in the treatment of cancer.
4. Discuss role of hormones and natural products in cancer chemotherapy.
5. What is gene therapy ? Discuss the various factors involved in the gene therapy.
6. Explain the theories of drug activity.
7. What is biotransformation ? Write the reactions involved in the biotransformation.
8. Write short note on :
  - (a)  $LD_{50}$  and  $ED_{50}$
  - (b) Hansch analysis

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