

**M.Sc.(Chem.) Semester - 4 (CBCS) Examination**  
**April/May-2022 (OLD COURSE)**  
**ADVANCED MEDICINAL CHEMISTRY(ELECTIVE-1)**

**Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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**Q.1** Answer any **seven** of the following ten questions. [14]

1. Define the terms: Pharmacokinetics and Pharmacodynamics.
2. Define the terms: SAR and QSAR.
3. What is Craig's Plot?
4. Why Lead Optimization is required?
5. Enlist the mechanism of drug absorption.
6. Explain Chiral drug with suitable example.
7. Discuss the term Copyright with examples.
8. What is Patent? Explain with Example.
9. What is Lead compound? How they are Identify?
10. Enlist the linker used in combinatorial chemistry.

**Q.2** Answer any **two** of the following three questions. [14]

1. What is trademarks? Differentiate trade mark and trade secret.
2. Discuss various applications of combinatorial chemistry.
3. Discuss Lipophilic parameters used in QSAR studies.

**Q.3** Answer the following questions. [14]

1. Write a note on passive diffusion in drug absorption.
2. Write a note on polymorphism.
3. Draw the flow chart and stepwise diagram of drug discovery processes.

**OR**

**Q.3** Answer the following questions. [14]

1. Describe renal excretion process in detail.
2. Discuss the electronic effects in QSAR studies.

**Q.4** Answer the following questions. [14]

**A.** Answer Any **two** out of three questions

1. Explain in detail: Ion-channel linked receptors.
2. What is intellectual property rights? Explain its need and promotion.
3. How Wilson model is differs from Hansch model? Discuss with their advantages and limitations.

**B.** Answer Any **one** out of two questions

1. Classify the Pro-drugs with examples.
2. Discuss Phase-I reactions in biotransformation process.

**Q.5** Answer any **two** of the following four questions. [14]

1. Discuss agonist, inverse agonist, partial agonist, antagonist with diagram.
2. Explain Tea-Bag method to prepare combinatorial library with suitable example.
3. Write the synthesis of S-Cetirizine Di-hydrochloride
4. How to increase potency of the lead compound by functional group modification.

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