

# P. P. SAVANI UNIVERSITY

Third Semester of M.Sc. Examination

December-2021

SSCH8090-Medicinal Chemistry

16.12.2021, Thursday Time: 12:30 p.m. to 3:00 p.m. Maximum Marks: 60

## **Instructions:**

1. The question paper comprises of two sections.
2. Make suitable assumptions and draw neat figures wherever required.
3. Use of scientific calculator is allowed.

## **Section-I**

**Q.1 Very Short Questions (Attempt any five) [10]**

- 1.1 State the pharmacokinetic (PK) properties of drugs
- 1.2 What is the clinical utility of Acetylcholinesterase and Dihydrofolate reductase?
- 1.3 Write the different fundamental mechanism of drug action?
- 1.4 What is pharmacokinetics and pharmacodynamics?
- 1.5 State the different actions of drugs?
- 1.6 What is BBB? Discuss about BBB?

**Q.2 Write Short Notes (Attempt any two) [06]**

- 2.1 Write a short note on plasma protein binding and tissue binding?
- 2.2 Discuss the distribution mechanism of Drugs?
- 2.3 What is Absorption of drugs and discuss about types of absorption?

**Q.3 Detail questions (Attempt any two) [14]**

- 3.1 Draw the schematic diagram of drug design? Explain different types of drug designs with diagram?
- 3.2 Write down the different steps of Drug Discovery Process? Discuss about Clinical trials-Different Phases of drugs?
- 3.3 Write the role of medicinal chemists? What are the area which comes under drug discovery field?

**Section-II**

- Q.1 Very Short Questions (Attempt any five) [10]**
- 1.1 Define the term pain and analgesics?
  - 1.2 Define the term Anesthesia and NSAIDs?
  - 1.3 Definition of Tranquilizer?
  - 1.4 Write the role of phenothiazine drugs?
  - 1.5 What is the mechanism of Osmotic diuretics and Loop diuretics?
  - 1.6 Draw the structure of Fluoxetine and Trazodone?
- Q.2 Write Short Notes (Attempt any two) [06]**
- 2.1 Write down the synthesis method of Indomethacin?
  - 2.2 Write a short note on Structure-Activity Relationships of benzodiazepines?
  - 2.3 Write down the synthesis method of Triflupromazine and its uses?
- Q.3 Detail questions (Attempt any two) [14]**
- 3.1 Write the Synthesis method, mechanism of actions, uses and side effects of Chlorpromazine?
  - 3.2 Discuss about the Chemistry, synthesis and uses of Glipizide?
  - 3.3 (a) Draw the structure of Piroxicam and Meloxicam? (b) Write down the synthesis method of Piroxicam?