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Total No. of printed pages = 1

Monsoon, 2023

M. Pharm (Pharm. Chemistry) Semester Examinations

ADVANCED MEDICINAL CHEMISTRY

Course Code: MPC103T

Full Marks – 75

Time – 03 hours

The figure in the margin indicates full marks for the questions.

A. Answer all (50 words)

10×2=20

1. Differentiate between prodrug and soft drug.
2. Name some prodrugs used as ACE inhibitor.
3. Define point mutation.
4. Explain in brief about different functional groups targeted for prodrug design.
5. Explain in short about different mechanisms of drug resistance.
6. Define and differentiate Lead and Hit molecule.
7. Mention the fastest acting and slowest acting receptor types.
8. Mention the name of the most predominant drug receptor interaction.
9. Define inverse agonist.
10. Explain in short about stages of clinical trials involved in drug discovery.

B. Answer any seven (100 words)

7×5=35

1. Define agonist, inverse agonist, antagonist and partial antagonist with graphical representation.
2. Write a note on advantages of artificial enzymes.
3. Explain about the different types of artificial enzymes.
4. Write a note on the different force of interactions responsible for drug receptor binding.
5. Explain the different theories of drug receptor interaction.
6. Explain how stereochemistry is important in drug action.
7. Write a note on peptidomimetics.
8. Write a note on COX-1 and COX-2 inhibitors.
9. Classify H1 and H2 antihistaminics. Mention their use and side effects.

C. Answer any two (200 words)

2×10=20

1. Derive Michaelis Menten equation. Explain the different types of enzyme inhibition.
2. Mention why analog design is important in drug design. Explain the detail strategies involved in analog design.
3. Write a descriptive note on the different stages involved in drug discovery process.