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MPC 103 T

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2023

M.Pharm 1st Semester End-Term Examination

Pharmaceutical Chemistry

ADVANCED MEDICINAL CHEMISTRY - I

Full Marks - 75

Time - Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions : (10 × 2 = 20)
 - (a) Mention the basic reasons behind prodrug design.
 - (b) Briefly explain about psychoactive drugs.
 - (c) Define and differentiate Lead and Hit molecule.
 - (d) Define point mutation.
 - (e) Explain in short about anticancer drug resistance.
 - (f) Mention any two advantages of artificial enzymes.
 - (g) Define R and S isomers.
 - (h) Define inverse agonist.
 - (i) Explain the different functions of prostaglandins.
 - (j) Differentiate soft drugs and prodrugs.
2. Answer any *seven* questions : (7 × 5 = 35)
 - (a) Write the SAR of barbiturates and benzodiazepines.
 - (b) Write a note on the different force of interactions responsible for drug receptor binding.
 - (c) Write a note on peptidomimetics and its therapeutic value.
 - (d) Enumerate the synthesis of any two antineoplastic agent.

[Turn over

- (e) Write a note on rational design of enzyme inhibitors.
- (f) Write a note on artificial enzymes.
- (g) Explain the different theories of drug receptor interaction.
- (h) Explain about different types of enzyme inhibition with example.
- (i) Classify antihypertensive drugs and explain their mechanism of action.

3. Answer any *two* questions : (2 × 10 = 20)

- (a) Define analog molecules. With example and structure, write a note on different types of analog design methodologies. (2+8=10)
- (b) Briefly explain about the different receptor types and their transduction mechanisms involved. (10)
- (c) Write an elaborate note on antibiotic resistance and strategies to combat it. (5+5=10)