

[Total No. of Questions - 15] [Total No. of Printed Pages - 2]
(2064)

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M. Pharmacy 2nd Semester Examination

Advanced Pharmaceutical Chemistry-II

MP-221

Time : 3 Hours

Max. Marks : 90

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Attempt any one question—

1. Explain various forces involved in drug-receptor interactions taking suitable examples. Also describe different types of receptors alongwith a comprehensive discussion on G-protein coupled receptors.
2. What are prodrugs? Give the importance of prodrug approach. Write an exhaustive note on bioprecursor and carrier linked prodrugs. Also comment on soft drug design. (25×1=25)

Attempt any three questions—

3. What are reversible and irreversible enzyme inhibitors? Discuss in detail about ACE inhibitors and reverse transcriptase inhibitors.
4. Discuss various techniques of enzyme immobilization and mention their advantages and disadvantages.
5. Describe different strategies employed in the protection and deprotection of hydroxy, carboxyl and amine functional groups, and their utility in polypeptide synthesis.

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6. What are the recent advances in the field of cardio-vascular agents? Give some examples of FDA approved drugs as well as new molecules under clinical trial in this category.
(10×3=30)

Attempt any seven questions—

7. What are primary, secondary, tertiary and quaternary structure of enzymes?
8. Discuss the chemistry of Cox-II inhibitors.
9. What is microbial transformation? Define its role in the production of steroids.
10. Write a note on antibody directed enzyme prodrug therapy (ADEPT).
11. Explain the use of synthon approach in the synthesis of Ibuprofen and ciprofloxacin.
12. Write a note on antimalarial drugs.
13. Give any two methods for the synthesis of heteroaromatic ring system with reference to five membered rings.
14. Briefly describe various theories of ligand-receptor interaction.
15. Comment on retrosynthetic analysis. (5×7=35)