

[Total No. of Questions - 15] [Total No. of Printed Pages - 2]  
(2063)

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**B. 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:*

**(25×1=25)**

1. Discuss different methods of synthesizing five and six-membered heteroaromatic rings. Also comment on selective functional group interconversions.
2. How microbial transformations differ from chemical reactions? Discuss the role of microbial transformations in the production of antibiotics, steroids and prostaglandins.

*Attempt any three questions:*

**(10×3=30)**

3. Describe various forces involved in drug receptor interactions with suitable examples.
4. What are the recent advances in the field of antihypertensive? Give some examples of FDA approved drugs as well as new molecules under clinical trial in this category.
5. Define drug latentiation and write a detailed note on bioprecursor and carrier linked prodrugs.

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**[P.T.O.]**

6. What are transition state analogs? Discuss in detail about DNA polymerase inhibitors and cytochrome-p.450 inhibitors.

*Attempt any seven questions:*

**(5×7=35)**

7. Give the synthesis of captopril and propranolol.
8. Explain design of hard and soft drugs with their advantages and disadvantages.
9. Write a short note on different types of receptors.
10. Comment on enzyme immobilization techniques.
11. Discuss synthons for carbon-carbon bond formation.
12. Describe recent progress in the chemistry of antihyperlipidemics.
13. Explain primary, secondary, tertiary and quaternary structure of enzymes.
14. Write a note on anticancer drugs.
15. Comment on ligand-receptor theories.