

Rajiv Gandhi University of Health Sciences
First Year M. Pharm Degree Examination - May 2012

[Time: 3 Hours]

[Max. Marks: 100]

MEDICINAL CHEMISTRY I (DRUG DESIGN)

PAPER III

(RS 2 & RS 3)

Q.P. CODE: 9233

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAY (Answer any TWO)

2 X 20 = 40 Marks

1. Discuss the various practical and theoretical aspects of microbial transformations in the preparation of drugs
2. a) Discuss Hansch and Free Wilson analysis. Give their applications
b) What are the various electronic and steric parameters used in QSAR analysis?
3. a) Describe the approaches used in the rational design of enzyme inhibitors
b) Discuss the study of DHFR enzyme inhibition using Recombinant DNA technology

SHORT ESSAY (Answer any FIVE)

5 X 10 = 50 Marks

4. Write a note on proton pump inhibitors
5. Write notes on Immunostimulants and immuno suppressive agents
6. What is protein engineering and site directed mutagenesis? How it helps in the development of new therapeutic agents?
7. With suitable examples explain how biosteric replacement, conversion to rigid analogs, alkyl chains and branching helps in the design of analogs from the original lead
8. Write a note on molecular modelling in drug design
9. Write the various methods used for calculation of partition coefficient. Explain any one method

SHORT NOTES

2 X 5 = 10 Marks

10. Theories of drug action
11. Forces involved in drug receptor interactions

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