

Rajiv Gandhi University of Health Sciences
First Year M. Pharm Degree Examination – May 2013

[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. (a) Explain about molecular modeling in drug design.
(b) Write a note on drug receptor interaction.
2. (a) Explain the merits and de-merits of Hansch and free Wilson analysis.
(b) Discuss in detail about enzyme inhibitors
3. (a) Discuss the theoretical and practical aspects of Microbial transformation in the production of some steroidal drugs
(b) Give an account on gastric-acid inhibitors.

SHORT ESSAY (Answer any FIVE)**5 X 10 = 50 Marks**

4. What are pro drugs? Explain the various aspects governing pro-drug design
5. Give an account of quantum mechanics
6. (a) Explain the design of non-covalently binding enzyme inhibitors.
(b) Write a note on the agents under development for HIV infection.
7. (a) Discuss the design of analogues by bioisosteric replacement.
(b) Give an appropriate example of the role of recombinant DNA technology in drug discovery.
8. Explain with suitable examples how partition coefficient and hydrogen bonding affect the biological activity of a drug.
9. Discuss in detail the test assays used in testing proton pump inhibitors

SHORT NOTES**2 X 5 = 10 Marks**

10. Add a note on Immuno stimulants with suitable examples
11. Add a note on Human growth hormone.

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