

Rajiv Gandhi University of Health Sciences, Karnataka

First Year M. Pharm Degree Examination – Oct/Nov 2014

Time: Three Hours**Max. Marks: 100 Marks**

ADVANCED MEDICINAL CHEMISTRY (Revised Scheme 4)

Q.P. CODE: 9353

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

LONG ESSAYS (Answer any Two)**2 x 20 = 40 Marks**

1. a) What are Cholinergic agents? Discuss the cholinergic blocking agents in detail.
b) Show how the structure of atropine has been arrived at. (10+10)
2. a) Write a note on drug metabolism involving oxidation and conjugation reactions. With suitable examples.
b) Discuss the effect of the following physico chemical properties on drug action with suitable examples. A) Partition coefficient B) Bioisosterism C) Protein Binding. (10+10)
3. Discuss in detail the process of CADD. Add a note on substituents constants useful for QSAR analysis. (20)

SHORT ESSAYS (Answer any FIVE)**5 x 10 = 50 Marks**

4. Classify sedatives and hypnotics with suitable examples. Add a note on SAR of barbiturates and outline the synthesis of Chlordiazepoxide and Phenobarbitol.
5. Classify adrenergic blocking agents with suitable examples. Outline the synthesis of any drugs under this class.
6. Outline the metabolism of purines and pyrimidins.
7. Prove the structure of ephedrine.
8. Classify steroids and triterpenoids with relevant examples. Discuss the development of antifertility agents.
9. What are the various factors to be considered while designing a new drug? Explain in detail.

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

10. Classify anticonvulsants with suitable examples. Outline the synthesis of phenytoin sodium and carbamazepine.
11. Write the examples of sympathomimetic agents and mention their specific uses. Outline the synthesis of naphazoline.
