

Rajiv Gandhi University of Health Sciences, Karnataka

Third year B.Pharm Degree Examination – August 2010

Time: Three Hours

Max. Marks: 80 Marks

MEDICINAL CHEMISTRY - I (Revised Scheme - 2)

Q.P. CODE: 1961

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

LONG ESSAYS (Answer any Two)

2 x 10 = 20 Marks

1. What is Phase I and II metabolism? Mention the sites of bio-transformation and general pathways of drug metabolism. Explain the role of cytochrome – P₄₅₀ mono oxygenase in oxidative bio-transformation
2. What are opioid analgesics? Classify with examples. Explain the SAR of morphine and related compounds
3.
 - a) What are anti-cholinestereases? Write a note on reversible cholinesterase inhibitors
 - b) Classify cholinergic blocking agents giving atleast one structure to each class

SHORT ESSAYS (Answer any Eight)

8 x 5 = 40 Marks

4. Write a note on protein binding in relation to biological action
5. What are sedative and hypnotics? Classify with examples
6. Skeletal muscle relaxants
7. Outline the synthesis of Carbamazepine and Clonazepam
8. Discuss the SAR of Benzodiazepines
9. Explain the stereochemistry and synthesis of ephedrine
10. Classify anti-allergic agents with examples and give the synthesis of promethazine
11. Discuss the biosynthetic pathways of eicosanoids
12. Write a note on adrenergic blocking agents
13. Classify NSAID's. Write the synthesis and uses of Phenylbutazone

SHORT ANSWERS

10 x 2 = 20 Marks

14. Why Barbituric acid itself does not possess any hypnotic activity? Justify
15. Biological actions of prostaglandins
16. Structure and uses of Ephedrine and Baclofen
17. Synthesis of Acetaminophen
18. Structure and uses of solanaceous alkaloids
19. What is dissociative anesthetic? Give one example with structure
20. Classify antiepileptics with examples
21. Histamine reactions
22. Structure of any two mydriatics
23. Indirectly acting adrenergic agonists
