

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Pharm Degree Examination – NOV - 2017

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. Classify sympathomimetic agents giving the structure of one under each class. Explain the biosynthesis and pharmacological activities of catecholamines.
2. Define and classify anticonvulsants giving the structure of one drug under class. Explain the mechanism of anticonvulsant action. Outline the synthesis of clonazepam.
3. What are NSAIDs? Give the chemical classification with examples drawing one structure of drug from each class. Write the synthesis of piroxicam and mefenamic acid.

SHORT ESSAYS (Answer any Eight)**8 x 5 = 40 Marks**

4. Explain the importance of partition coefficient and optical isomerism in biological activity.
5. Write a note on biosynthesis and therapeutic applications of eicosanoids.
6. Explain the structural elucidation of ephedrine.
7. Write a note on narcotic antagonists.
8. Classify general anaesthetic agents with examples. Write the synthesis of methohexital.
9. Classify H₁-antagonists with examples. Write the synthesis of diphenhydramine.
10. Explain with suitable examples, the factors affecting drug metabolism.
11. Classify synthetic cholinergic blocking agents with examples. Outline the synthesis of tropicamide.
12. Outline the synthesis of acetaminophen and phenyl butazone.
13. Give the SAR of barbiturates. Outline the synthesis of Phenobarbital sodium.

SHORT ANSWERS**10 x 2 = 20 Marks**

14. Write the structures of any two H₂ receptor antagonists.
15. List out important local anaesthetics.
16. Write the structures of any two cholinesterase inhibitors.
17. List out two antispastic agents.
18. What are prostaglandins? Give an example.
19. Synthesis of meprobamate
20. Structure and use of phenylephrine
21. Synthesis of dicyclomine
22. Structure and use of lidocaine
23. Synthesis of meclizine

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