

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Pharm Degree Examination – NOVEMBER 2015

Time: Three Hours**Max. Marks: 70 Marks**

MEDICINAL CHEMISTRY - I (Revised Scheme 3)

Q.P. CODE: 2611

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

LONG ESSAYS (Answer any Two)**2 x 10 = 20 Marks**

1. Define and classify sedatives, hypnotics and anxiolytics. Explain the structure activity relationship of barbiturates with suitable examples. Give the Structure, uses and synthesis of Phenobarbital.
2. Define and classify antihistaminics with examples. Discuss the structure activity relationship of H₁ antagonists. Outline the synthesis of (a) Tripeleminamine and (b) Promethazine.
3. Define and classify cholinergic blocking agents. Give the structure and uses of 5 synthetic cholinergic antagonists. Outline the synthesis of Dicyclomine.

SHORT ESSAYS (Answer any Six)**6 x 5 = 30 Marks**

4. Explain the biosynthesis of prostaglandins.
5. Discuss the peripheral modifications of morphine.
6. Explain structure activity relationship of Benzodiazepines with suitable examples.
7. What are local anaesthetics? Give the synthesis of Procaine and Dibucaine.
8. Explain the biosynthesis and metabolism of adrenergic neurotransmitter.
9. Classify NSAID's with examples and outline the synthesis of Oxyphenbutazone.
10. Give the chemical classification of drugs employed in the management of convulsive disorders. Outline the synthesis of Trimethadione.
11. Discuss the effect of the following physicochemical properties on drug action with suitable examples (a) Ionization (b) Optical isomers.

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

12. Write briefly on ganglionic blocking agents.
13. Give the synthesis of Phentolamine.
14. Name any two alpha-adrenergic blocking agents and give their structures.
15. Therapeutic applications of Prostaglandins
16. Write the structure and uses of any two skeletal muscle relaxants.
17. Give the synthesis of Diazepam.
18. Write a brief note on agents used in spasticity.
19. Give the mechanism of proton pump inhibitors
20. Define partition coefficient and mention its significance.

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21. Give the structure and therapeutic significance of Physostigmine.

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