IV Sem

Rajiv Gandhi University of Health Sciences, Karnataka

Fourth Semester B. Pharm Degree Examination – 07-Jan-2020

Time: Three Hours **Max. Marks: 75 Marks**

MEDICINAL CHEMISTRY - I
Q.P. CODE: 5014

P (B)

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. Define and classify sedatives and hypnotic giving examples with one structure from each class. Discuss the SAR of benzodiazepines.
2. Define and classify general anesthetic with examples. Explain their mode of action. Write the synthesis of methahexital sodium.
3. a) What are adrenergic blockers? Classify alpha and beta adrenergic blockers with one structure from each class.
   b) Write the synthesis and uses of Tolazoline and Propronolol. (2)

SHORT ESSAYS (Answer any Seven) **7 x 5 = 35 Marks**

4. Define and classify NSAIDS with example. Give the structure of one drug from each class.
5. Discuss the SAR of phenothiazine analogs used as tranquilizers.
6. What are direct acting sympathomimetics? Write four structures and their uses. Outline the synthesis of any one.
7. Explain the role of hydrogen bonding and protein binding on drug action.
8. Explain the importance of optical and geometrical isomerism in relation to biological action of drugs.
9. What is Phase – I metabolism? Explain reductive and hydrolytic metabolisms with examples.
10. Write the mechanism of action of cholinesterase inhibitors. Give two structural examples each for reversible and irreversible type.
11. Discuss the SAR of cholinergic agonists.
12. Give an account on solanaceous alkaloids with structural examples. Write the synthesis of Ipratropium bromide.

SHORT ANSWERS (Answer All) **10 x 2 = 20 Marks**

13. Write a note on nicotinic receptors.
14. Write the structure and uses of Pilocorpine and Pyridostigmine.
15. Write the synthesis of Procyclidine hydrochloride.
16. What are Narcotic antagonists? Give two examples with structure.
17. Write a note on the role of ionization on drug action.
18. Explain amino acid conjugation in phase-II metabolism.
19. Write the structure and uses of Atenolol and Metaprolol.
20. Write a note on mixed acting sympathomimetics.
21. Write the structure and uses of Dicyclomine and Clodinium.
22. Write the structure and uses of Haloperidol and Phenytoin.

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