

# Rajiv Gandhi University of Health Sciences, Karnataka

## III Year B.Pharm Degree Examination – May 2017

Time: Three Hours

Max. Marks: 70 Marks

### MEDICINAL CHEMISTRY - I

#### (RS - 4)

#### Q.P. CODE: 2635

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. Explain oxidative biotransformation in detail and enumerate the factors affecting biotransformation.
2. Define and classify general anaesthetics. Explain the mode of action and enumerate the synthesis of halothane.
3. a) Discuss how solubility and partition coefficient influence the biological activity.  
b) Outline the synthesis of Diazepam and Chlorpromazine.

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

4. What are adrenergic agonists? Give the synthesis of clonidine
5. Write a note on cholinesterase inhibitors.
6. Write the SAR of lidocaine derivatives and give the synthesis of procaine
7. Write the synthesis and uses of chlorpheniramine and Promethazine
8. Outline the synthesis and uses of piroxicam and naproxen
9. Explain isoprene and special isoprene rule giving suitable examples.
10. Give the biosynthesis and metabolism of adrenergic neurotransmitters.
11. Outline the synthesis and medicinal uses of neostigmine and Phenoxybenzamine.

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

12. Write a note on protein binding in drug action
13. Give the structure and chemical name of clonazepam
14. Give the structure and chemical name of carbamazepine
15. Write the structure and medicinal uses of propranolol
16. Write the structure and uses of scopolamine and atropine
17. Write the structure and uses of carbachol and methacholine
18. What are gastric proton pump inhibitors? Give examples
19. What is analgesia? Compare and contrast narcotic and non-narcotic analgesics
20. Write the structure and uses of loperamide and pentazocine
21. Give the structure and medicinal uses of prostaglandins  $\text{PGF}_{2A}$  and  $\text{PGE}$

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