

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B. Pharm Degree Examination – 04-Jan-2020

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.

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

1. What are conjugation reactions? Explain the role of these reactions in drug metabolism with any two examples.
2. Explain the SAR of phenothiazines. Outline the synthesis of haloperidol and chlorpromazine.
3. a) Explain role of Cytochrome P-450 in biotransformation.
b) Explain the SAR of barbiturates.

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

4. Outline the biosynthesis and metabolism of adrenergic neurotransmitters
5. Give the synthesis of dicyclomine and tropicamide
6. Classify local anaesthetic agents and explain their mechanism of action
7. What are H₂ receptor antagonists? Explain their mechanism of action and mention their medicinal uses.
8. Write the synthesis and uses of methadone and dextromethorphan
9. Explain the interrelationship between caffeine, theophylline and theobromine.
10. Write a note on β -adrenergic blocking agents.
11. Write a note on cholinesterase inhibitors.

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

12. What is phase I biotransformation
13. Give the structure and chemical name of phenobarbitone
14. Give the structure and uses of baclofen and buspirone
15. Give the structure and medicinal uses of methyl dopa and naphazoline
16. Outline the synthesis of neostigmine
17. Write the structure and uses of any two neuromuscular blocking agents
18. Write the structure and uses of tripelenamine and pheniramine
19. What are anti-tussive agents? Give an example with structure
20. Give the structure and chemical name of ibuprofen
21. Write the structure and medicinal uses of any two prostaglandins
