

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**Fourth Semester B. Pharm Degree Examination – JUNE-2019**

**Time: Three Hours**

**Max. Marks: 75 Marks**

**Medicinal Chemistry - I**

**Q.P. CODE: 5014**

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 classify and write the SAR of adrenergic agents and give the synthesis of phenylephrine.
2. Define antipsychotic drugs. Write the structure of any four drugs to treat the same froms different classes. Outline the synthesis of chlorpromazine hydrochloride.
3. Explain the SAR of Morphine with respect to peripheral modification. Write the synthesis of Fentanyl citrate.

**SHORT ESSAYS (Answer any Seven)**

**7 x 5 = 35 Marks**

4. What is phase I biotransformation? Discuss any two oxidative reactions.
5. Explain the role of solubility and protein binding.
6. Explain role of Cytochrome P-450 in biotransformation.
7. What are indirect acting sympathomimetic agents? Write the structure and uses of any one drug.
8. Write the structure atropine. Discuss its mechanism of action, uses and side effects.
9. Discuss SAR parasympathomimetic agents.
10. Write the synthesis of dicyclomine hydrochloride. Discuss its mechanism of action, uses and possible side effects.
11. Discuss the SAR of Benzodiazepins. Write the structure and uses of Alprazolam.
12. Write the structure, uses and their serious side effects of a) Indomethacin b) Ketorolac c) Naproxen

**SHORT ANSWERS (Answer All)**

**10 x 2 = 20 Marks**

13. Reduction reactions in drug metabolism
14. Hydrolytic reactions in drug metabolism
15. What is catecholamine? Mention any two important neurotransmitter catacholamines.
16. Write a note on alpha receptors.
17. Write any two structures of selective beta two agonists.
18. Write a note on muscarinic receptors.
19. Write the structure and uses of Ambenonium chloride.
20. Write the structure and uses of Malathion.
21. Write the structure and specific uses of Phenobarbital with possible side effects.
22. Write the structure and specific uses of Tolmetin

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