

Rajiv Gandhi University of Health Sciences, Karnataka
Sixth Semester B. Pharm Degree Examination – 03-Nov-2023

Time: Three Hours

Max. Marks: 75 Marks

MEDICINAL CHEMISTRY-III

Q.P. CODE: 5023

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

All the Questions are compulsory.

LONG ESSAYS

2 x 10 = 20 Marks

1. Define and classify anti-malarial agents with structural examples. Outline the synthesis of Chloroquine.

OR

Discuss in detail about polyene antifungal antibiotic agents. Write the synthesis and MOA of Miconazole.

2. Define antibiotics. Classify them with structural examples. Discuss the chemistry and mechanism of action of amino glycoside antibiotics.

SHORT ESSAYS

7 x 5 = 35 Marks

3. Comment on combination therapy of trimethoprim and sulphamethoxazole.

OR

Discuss the chemistry of Quinolones. Write the synthesis of Nitrofurantoin.

4. Enlist the different parameters used in QSAR study. Explain any one.

OR

Write the degradation products of penicillin and cephalosporins.

5. Explain the life cycle of malaria. Write the different drugs acting on various stages.

6. Write the synthesis of pamaquine and chloramphenicol.

7. Write the structures and uses of the following. A) Rifampicin B) Sparfloxacin C) Gatifloxacin D) Gancyclovir.

8. Define and classify the cephalosporins based on generation giving their structures.

9. Add a note on folate reductase inhibitors. Explain the synergetic action of sulphamethoxazole and trimethoprim.

SHORT ANSWERS

10 x 2 = 20 Marks

10. Write the structure and uses of Nalidixic acid.
11. Outline the synthesis of dapsone.
12. Give synthesis and uses of Thiabendazole.
13. Name any two sulfonamides used in the treatment of Burn therapy.
14. What the structure and uses of Chlorguanide.
15. Write the structure and uses of any two 8-amino quinolines.
16. Give the structure and uses of Nystatin.
17. Give the applications of prodrug design.
18. Write the structure and uses of Diethyl carbamazine citrate.
19. Write the structure and uses of any one macrolide antibiotic.
