

**Rajiv Gandhi University of Health Sciences, Karnataka****III Year Pharma-D Degree Examination – Sep 2012****Time: Three Hours****Max. Marks: 70 Marks****MEDICINAL CHEMSITRY****Q.P. CODE: 2865**

Your answers should be specific to the questions asked  
Draw neat labeled diagrams wherever necessary

**LONG ESSAYS****2 x 10 = 20 Marks**

1. Define antibiotics? Classify antibiotics and give one examples of drug with structure under each class. Write the of development of acid resistant and extended spectrum penicillins
2. Define and classify anti-infective agents with two examples of drugs with structures under each class. Add note on structure activity relationships of quinolones
3. Classify antimalarial agents with examples. Write the mechanism of action, synthesis and uses of chloroquine

**SHORT ESSAYS****6 x 5 = 30 Marks**

4. Write the chemistry and mechanism of action of ACE inhibitors
5. Give four chemical structures of drugs belong to oral hypoglycemic agents and outline the synthesis of tolbutamide
6. Classify diuretics with examples. Write the structure activity relationships of thiazide diuretics
7. Classify anti-Arrhythmic agents with examples. Write the synthesis of any one anti-Arrhythmic agent
8. Write the mode of action, chemical structure and therapeutic use of cycloserine
9. Justify, sulfamethoxazole and trimethoprim combination is effective in antibacterial therapy
10. Write the method of synthesis and applications of combinatorial synthesis
11. Explain how antimetabolites act as antineoplastic agents with suitable examples

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

12. Write the chemical structure of sulfonamide used in ophthalmic infection
13. Write the synthesis of hexyl resorcinol
14. Write the chemical structure and uses of testosterone
15. Mention the types of hyperlipoproteinemia
16. Why tetracyclines are not effective in presence of milk and metals
17. Write the chemical structure and uses of thyroxine
18. Define scabicide with examples
19. Write the chemical structure and uses of diethyl stilbesterol
20. Write the mechanism of action of amino glycoside antibiotics
21. Define prodrug with examples

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