

Rajiv Gandhi University of Health Sciences  
First Year M.Pharm Degree Examination – May 2013

[Time: 3 Hours]

[Max. Marks: 100]

**ADVANCED ORGANIC CHEMISTRY**

**(RS 2 & RS 3)**

**Q.P. CODE: 9202**

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

**LONG ESSAY (Answer any TWO)**

**2 X 20 = 40 Marks**

1. a) Discuss the stereochemistry of Steroids  
b) Discuss the chemistry of tetrazole nucleus
2. a) Describe the method of preparation and synthetic application of aceto acetic ester  
b) Explain the mechanism of elimination reaction with examples
3. Outline the scheme for the synthesis and chemical properties of some pharmaceutical applications of.  
a) Pyrimidies    b) Dibenzapines    c) Isoxazole

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Describe the concepts of retrosynthesis with examples.
5. Discuss the synthesis and chemistry of quinoline ring and give some drug molecules having that basic ring structure.
6. Describe different types of chemical bonds and their properties
7. Outline the mechanism of Friedle crafts acylation and alkylation with examples.
8. Discuss the chemical nature of free radical and carbenes
9. Describe the reaction mechanism and the reagents involved in oxidation and reduction reactions

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. Microwave irradiation techniques in the synthesis of drugs with examples.
11. Hydrogenation reactions with heterogenous catalysts

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