

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

[Time: 3 Hours]

[Max. Marks: 100]

**ADVANCED PHARMACEUTICAL CHEMISTRY (ORG.)****PAPER II****(Revised Scheme 2)****Q.P. CODE: 9232**

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. Write an account of formation, structure and reactions involving carbenes.
2. (a) Give the structure and stability of carbocations.  
(b) Discuss with suitable examples of Pinacol-Pinacolone and Trans-annular rearrangement.
3. Explain in detail the various aspects of combinatorial chemistry in drug discovery.

**SHORT ESSAY (Answer any FIVE)****5 X 10 = 50 Marks**

4. Explain with various examples of pericyclic reactions.
5. Explain the Mechanism of Hofmann and Curtius Schmidt-Iossen rearrangement reactions.
6. Give an account of phase transfer catalysis in sulfide formation in ester hydrolysis and anhydride.
7. Discuss the catalysed reactions in the manufacture of drugs.
8. Explain with mechanism of perkin and favorskii rearrangement.
9. Give an account of formation, stability and reactions of free radicals.

**SHORT NOTES****2 X 5 = 10 Marks**

10. Give mechanism and reactions of cope rearrangement.
11. Discuss the mechanism involved in cannizzaro reaction and Aldol condensation.

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