



Rajiv Gandhi University of Health Sciences  
First Year M.Pharm Degree Examination - May 2011

[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. Discuss the mechanisms involved in nucleophilic aromatic substitution reactions with suitable examples
2. Write about the phase transfer catalysis in anhydrides, epoxide, ester and reduction reactions.
3. Classify rearrangement reactions with suitable examples. Explain any three rearrangement reaction with their mechanisms.

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Write an account of formation and reactions of free radicals.
5. Give an account of Homogenous and Heterogenous catalysis
6. Write about combinatorial libraries in solution.
7. Discuss the pericyclic reactions giving emphasis on sigmatropic rearrangement.
8. Explain the formation, structure and reactions of Carbenes.
9. Discuss the mechanism involved in Cannizzaro reaction and Aldol condensation by giving suitable examples.

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. Conversion of pyrrole to pyridine.
11. Macro-Beads in new solid phase synthesis.

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