

# Rajiv Gandhi University of Health Sciences, Karnataka

## First Year M. Pharm Degree Examination – Oct/Nov 2014

**Time: Three Hours****Max. Marks: 100 Marks**

### ADVANCED PHARMACEUTICAL CHEMISTRY (Revised Scheme 4)

**Q.P. CODE: 9352**

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

**LONG ESSAYS (Answer any Two)****2 x 20 = 40 Marks**

1. With suitable name reactions discuss the mechanism involved in Condensation, Rearrangement and oxidation-reduction reactions
2. Discuss in detail the formation, stability, structure of carbenes and Arenas. Add a note on microwave irradiation techniques with its advantages and limitations
3. Outline the synthetic routes and medicinally important compounds belongs to the following heterocycles (i) Furan (ii) Benzimidazole (iii) Isoxazole (iv) Phenothiazines and (v) Triazole.

**SHORT ESSAYS (Answer any FIVE)****5 x 10 = 50 Marks**

4. With suitable examples explain the mechanism of substitution and addition reactions.
5. What are Nitrenes? Explain the structure and reactions involving nitrenes.
6. Discuss the various methods involved in the synthesis of thiophenes and quinoline.
7. Write an account of the properties of enantiomers. Describe the methods available for resolution of racemic compounds.
8. Discuss the preparation and synthetic applications of aceto acetate and Malonic ester.
9. Explain Geometrical Isomerism and Optical Isomerism with examples.

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

10. Stereo Chemistry of Steroids.
11. What do you understand by resonance effect and inductive effect?

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