

Second Year B.Pharm Degree Supplementary Examinations - April 2014

**PHARMACEUTICAL CHEMISTRY III  
(Advanced Organic Chemistry)****Time: 3 Hours****Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

**Essay****(3x10=30)**

1. Discuss on optical isomerism giving emphasis to the resolution and racemisation.
2. Classify heterocyclic compounds. Mention the properties and reactions of six membered ring systems.
3. What is conformation and configuration and explain how they are analyzed.

**Short notes****(14x5=70)**

4. Explain the aromatic character, resonance structures and electrophilic substitution of phenanthrene.
5. Preparation for the following: • dibenzazepine • Indole
6. Narrate the mechanism and applications of Birch reduction.
7. Discuss the stereochemistry of amines.
8. Schmidt rearrangement – explain.
9. Michael addition reaction.
10. Mention the important reactions of quinoline and oxazole.
11. Narrate stereo specific and stereo selective synthesis with suitable examples.
12. Explain the mechanism of reduction taking place with hydrazine and its derivatives.
13. Mention the mechanism of oxidation with lead tetra acetate and explain where it is applied.
14. Mention the preparation and important reactions of acridine basic moiety.
15. Discuss the nature and nomenclature of geometrical isomers
16. Comment on the stereochemistry of oximes.
17. Discuss the resonance structures of polynuclear hydrocarbons.

\*\*\*\*\*