

Second Year B.Pharm Degree Examinations - October 2013

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

- Answer all Questions.
- Write equations wherever necessary.

Essay**(3x10=30)**

1. Discuss in detail on the stereochemistry of cyclic compounds and nitrogen compounds.
2. Explain the mechanism and applications of various types of rearrangement reactions.
3. Explain the various electrophilic substitution reactions of poly nuclear hydrocarbons.

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

4. Comment on the various conventions used in stereochemistry.
5. Explain the mode of synthesis of pyrazole and thiazole.
6. Structures for the following:
 - Oxazepine, • Dibenzazepine, • Quinoline, • Naphthalene, • Phenanthrene,
 - Mercuric acetate, • Quinazolone, • Hydrazine, • Isoxazole, • Pyrrole.
7. Explain the resonance structures of anthracene and pyridine.
8. Discuss the mechanism of oxidation with perchloric acid and its utility in the synthesis of various compounds.
9. Discuss on enantiomers and diastereomers with examples.
10. Comment on the mechanism and applications of dehydrogenation.
11. Explain the preparation and reactions of indole.
12. Explain Darzen's reaction.
13. Nomenclature of heterocyclic compounds.
14. Discuss important reactions of furan.
15. Explain the metal hydride reduction with examples of reactions
16. Discuss on conformational analysis with examples.
17. Comment on tetrahedral carbon and its features.
