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Roll No .....

**PY - 303****B.Pharmacy III Semester**

Examination, December 2013

**Pharmaceutical Chemistry - IV****(Organic Chemistry - II)****Time : Three Hours****Maximum Marks : 70****Note:** Attempt any five questions.

1. a) Write the theory of energy transfer characteristics of photoreaction. 7
- b) Give reaction and mechanism for electrocyclic and cycloaddition reaction. 7
2. a) Write synthesis, chemical reactivity and medicinal application of benzimidazole. 7
- b) Give nomenclature and reactivity of sulphur containing compounds. 7
3. a) Discuss the preparation and properties of oxazole and triazole. 7
- b) Describe the electrophilic substitution in pyrrole, furan and thiophene. 7

4. Give the heteroaromatic reactivity and tautomerism in aromatic heterocyclic compound. Discuss the strain bond angle and torsional strain in heterocyclic. 14

5. Write a note on: 7×2=14

- a) Neighboring group effect
- b) Catalysis by transition metal complex
- c) Reactivity of acridine

6. Give synthesis chemical properties and application of any two of following. 7×2=14

- a) Pyrimidine
- b) Imidazole
- c) Benzotriazole

7. Compare the structure chemistry and properties of any two of following. 7×2=14

- a) Pyridine
- b) Pyrazole
- c) Quinoline

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8. a) Give synthesis, chemistry and properties of cyanaides. 7
- b) Write a note on Nitro containing compound. 7

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