

**II B.Pharmacy I Semester Regular Examinations, Mar 2014  
ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY**

**Time: 3 hours**

**Max Marks: 75**

**Answer any FIVE Questions  
All Questions carry equal marks**

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1. (a) Discuss the structure and reactions of Quinoline?  
(b) Discuss the structure and reactions of Acridine? [8+7]
2. (a) Discuss the aromaticity in Benzimidazole and Phenothiazine  
(b) Write note on heterocyclic compounds containing fused ring system [8+7]
3. (a) Explain the concept of E & Z configuration?  
(b) Write a note on Fischer DL configuration? [7+8]
4. Write a note on
  - (a) Lobry De Bruyn Van Ekenstein reaction
  - (b) Epimerization
  - (c) Mutarotation
  - (d) oxidation- reduction reactions [15]
5. What are essential amino acids? Write the classification and methods of preparation of amino acids. [15]
6. (a) What are glycosides? Classify them with examples?  
(b) Enzymatic hydrolysis  
(c) Characterization of lipids  
(d) Rancidity of oils and fats [15]
7. (a) Write the structures & uses of uric acid, caffeine, theophylline and theobromine  
(b) Write a brief account on structure of DNA and RNA [8+7]
8. Write the detailed mechanism and applications of:
  - (a) Wittig reaction
  - (b) Hoffmann rearrangement
  - (c) Curtius rearrangement
  - (d) Schmidt reaction [4+4+4+3]

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