

Code No: PH104

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**Pharm.D I Year Supplementary Examinations, October/November - 2019**  
**PHARMACEUTICAL ORGANIC CHEMISTRY**

Time: 3hours

Max.Marks:70

**Answer any five questions**  
**All questions carry equal marks**

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- 1.a) Write the methods of preparations of cycloalkanes.  
b) Describe Bayer's Strain Theory and Orbital pictures of angle strain. [7+7]
- 2.a) Explain about different types of reactions.  
b) Describe about SN1 Vs SN2 solvolyses and what is the role of solvents in SN1 reactions. [7+7]
- 3.a) What is Walden inversion and What is peroxide effect?  
b) Describe cyclo addition reactions with suitable examples. [8+6]
- 4.a) Explain the following:  
i) Hyper conjugation  
ii) Mesomeric effect.  
b) How do you convert the following:  
i) Benzene to Toluene  
ii) Benzene to Acetophenone. [6+8]
- 5.a) Explain reactivity and orientation, activating and deactivating, O, M, P directing groups in electrophilic aromatic substitution.  
b) Write the methods of synthesis and chemical reactions of carboxylic acids. [7+7]
6. Explain the following named reactions:  
a) Aldol Condensation  
b) Wittig reaction  
c) Reimer tiemann's reaction  
d) Williamson synthesis. [14]
- 7.a) How do you prepare diazonium salt? Write its chemical properties.  
b) Explain basicity of amines. [7+7]
8. Explain the methods of preparation, test for purity, assay and medicinal uses of  
a) Aspirin  
b) Benzylbezoate  
c) Citric acid  
d) Dimercaprol [14]

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