

B.Pharm. (CBCS Pattern) Semester - IV  
**BP401T / 1 - Pharmaceutical Organic Chemistry-III**

P. Pages : 3

Time : Three Hours



**GUG/S/23/11990**

Max. Marks : 75

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- Notes : 1. All questions are compulsory.  
2. Diagrams and Chemical equation should be given wherever necessary.

**1. Multiple choices questions**

**20x1  
=20**

- i) Reaction of imidazole with  $\text{HN03}/\text{H2S04}$  gives following products.  
a) 2-nitroimidazole                      b) 4-nitroimidazole  
c) 1-nitroimidazole                      d) All
- ii) Diastereomers are not mirror images of each other  
a) True                                      b) False
- iii) The hormone cortisone contain the steroid core as  
a) Estrane                                  b) Androstane  
c) Cholestane                              d) Pregnane
- iv) Resolution of racemic mixture can be carried out by ----- methods  
a) Chemical                                b) Biochemical  
c) Physical                                  d) All of these
- v) Isomers which are non-superimposable mirror images of each other are enantiomers  
a) True                                      b) False
- vi) Molecules which have elements of symmetry are optically active  
a) True                                      b) False
- vii) R represent ----- absolute configuration.  
a) clockwise                                b) anti-clockwise  
c) both                                      d) none of these
- viii) D and L represents -----  
a) Absolute configuration                b) Relative configuration  
c) Both                                      d) None
- ix) Identify the phenolic group containing amino acid from the following.  
a) Leucine                                  b) Tyrosine  
c) Tryptophan                              d) Asparagine



- ii) What is Racemic modification? Discuss in detail about resolution of racemic mixture
- iii) Write the synthesis, chemical reaction and medicinal uses of Pyrrole and Furan

3. Short answer questions solve **any seven.**

**7x5**

- i) Outline the reactions of pyridine. Discuss the basicity of pyridine in detail. **=35**
- ii) Explain stereoselective and stereospecific reactions.
- iii) Define the term stereoisomer. Explain the properties of optical and geometrical isomers giving examples.
- iv) Write note on asymmetric synthesis
- v) Discuss Oppenauer oxidation and Birch reduction in detail.
- vi) Explain the mechanism and stereochemistry involved in Beckmann's Rearrangement reactions.
- vii) Discuss about absolute configuration assignment for compounds containing more than one chiral carbon
- viii) Discuss Fischer - Indole synthesis with their mechanism.
- ix) Write a note on Enantiomerism and meso compounds.

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