

PY-401**B.Pharmacy IV Semester**

Examination, June 2017

Choice Based Credit System (CBCS)**Pharmaceutical Chemistry - IV****(Organic Chemistry - III)***Time : Three Hours**Maximum Marks : 60*

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

- Discuss electrophilic and nucleophilic addition reactions on α , β unsaturated carbonyl compounds.
 - Explain nucleophilic substitution on aryl halides with and without electron withdrawing group on it.
- Write structures of sigma and pi diastereomers. Show how they differ from enantiomers in their physical and chemical properties.
 - Discuss DL and RS system of nomenclature in stereoisomers and merits of RS system over DL system.
www.rgpvonline.com
- Differentiate between meso structure and racemic modification. Briefly write on resolution methods for racemic mixture.
 - Write on partial and absolute asymmetric synthesis giving reaction equations.

- Supporting with chemical structures explain C is, Trans; E, Z and Syn, Anti system of nomenclature in geometric isomers.
 - Explain conformational isomerism in ethane, n-butane and cyclohexane.
www.rgpvonline.com

- Discuss optical activity in stereoisomers with chiral axis and chiral plane. Give structures in support of your answer.
 - What are stereospecific and stereoselective reactions? Explain through reaction equations.
- Write synthesis and medicinal uses of imidazole, quinoline and indole.
 - Discuss relative basicity of pyrrole and pyridine.
- Give synthesis and medicinal uses of acridine, azepine and pyrimidine.
 - Discuss relative aromaticity and reactivity of pyrrole, furan and thiophene.
- Name some reducing agents of synthetic importance. Discuss metal hydride reduction.
 - What are rearrangement reactions? Discuss Beckmann and schmidt rearrangements.

www.rgpvonline.com