



[LR 1220]

DECEMBER 2020

Sub. Code: 4258

(AUGUST 2020 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION**SECOND YEAR – (Regulation from 2009-2010)****PAPER III – ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY*****Q.P. Code: 564258*****Time: Three hours****Answer ALL questions****Maximum: 100 Marks****I. Elaborate on:****(2 x 20 = 40)**

1. What are Conformational Isomers? Explain the conformations of monosubstituted and disubstituted cyclohexanes.
2. a) Classify heterocyclic compounds and explain the nomenclature.
b) Explain the methods of preparation and chemical properties of Quinoline.

II. Write notes on:**(8 x 5 = 40)**

1. Explain Asymmetric synthesis with examples.
2. Write the electrophilic substitution reactions of Thiophene.
3. Describe the chemistry and uses of Vitamin B6.
4. Classify Flavonoids. Explain the chemistry of Hesperidin.
5. What happens when:
 - a) Furan is treated with Maleic anhydride.
 - b) Thiophene is reacted with Acetyl chloride and stannous chloride.
 - c) Pyridine is nitrated with nitrating mixture.
 - d) Quinoline reacts with Methyl iodide.
6. Explain the chemistry of Sennosides.
7. Give the reaction and mechanism of Schmidt rearrangement.
8. Explain the modern theory of double bonds.

III. Short answers on:**(10 x 2 = 20)**

1. Write any two methods of preparation of Pyrimidine.
2. Explain the reduction reaction with Hydrazines.
3. Mention any two uses of Sodium borohydride.
4. Give an identification test for Atropine.
5. Write any one method of preparation of Phenothiazine.
6. Write the structure of Vitamin D and Vitamin K and mention its uses.
7. What is Stereomutation?
8. Write any two reactions of Pyrazole.
9. Give any two oxidative uses of periodic acid.
10. Write the structure of α -pinene and its uses.

