



(LL 4258)

AUGUST 2017

Sub. Code: 4258

B.PHARM. DEGREE EXAMINATION**SECOND YEAR****PAPER III – ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY***Q.P. Code: 564258***Time: Three hours****Maximum: 100 Marks****I. Elaborate on:****(2 x 20 = 40)**

1. a) Define and classify heterocyclic compounds.
b) Explain the structure, reactivity, preparation and chemical reactions of Pyridine.
2. a) Define and classify alkaloids with examples.
b) Elucidate the structure of Ephedrine.

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

1. Explain in detail the criteria for a compound to be optically active.
2. Discuss about asymmetric synthesis with examples.
3. Explain the Cahn Ingold and Prelog system sequence rule for assigning configuration of optical isomers.
4. Explain inter relation between menthol, thymol and camphor.
5. Explain the mechanism and give the applications of Reduction using hydrazine.
6. Give the i) Fischer indole synthesis ii) Skraup synthesis of Quinoline.
7. Classify Flavanoids and discuss about the chemistry of Hesperidin.
8. Explain the Chemistry and pharmacological activity of digitalis glycosides.

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

1. Write the structure and medicinal uses of Vitamin A and Vitamin
2. Define and give an application of Beckmann rearrangement.
3. Define Stereospecific and stereoselective synthesis.
4. Give any two applications of Lead tetra acetate.
5. What is Birch reduction? Give an example.
6. Write the formylation reactions of Pyrrole.
7. Write any two synthesis of Acridine.
8. List out the metal hydrides used in reduction reactions and give an application of Lithium aluminium hydride.
9. Write various conformations of cyclohexane.
10. Write the structure and medicinal uses of Citral and Caffeine.

