

(LO 4258)

FEBRUARY 2019

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. Define and classify alkaloids with examples. Discuss the chemistry and pharmacological activity of Atropine.
2. a) Write in detail about asymmetric synthesis.  
b) What is Walden Inversion explain in detail the mechanism of reaction and factors affecting Walden inversion?

**II. Write notes on:**

**(8 x 5 = 40)**

1. Explain conformational analysis of ethane.
2. Explain the Schmidt rearrangement with mechanism.
3. Describe the chemistry of digitoxin.
4. Describe the chemistry and uses of Vitamin-E.
5. Write a brief note on catalytic hydrogenation.
6. Synthesis of thiophene.
7. Compare and contrast Clemmenson's reduction and Wolf Kishner reduction.
8. Explain the chemistry of Lanatosides.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Define racemic modification.
2. Define diastereomers.
3. Write the definition and reaction for Birch reduction.
4. Give any two methods of preparations of Imidazole.
5. What is metal hydride reduction? Give an example.
6. What are Terpenoids? Give two examples.
7. Write any two uses of Selenium oxide.
8. Define glycosides, give examples.
9. Write the structure of i) Vitamin - D ii) Vitamin – B<sub>1</sub>.
10. Give any two reactions of Furan.

\*\*\*\*\*