(LK 4258) FEBRUARY 2017 **Sub. Code: 4258**

B.PHARM. 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. What are Alkaloids? Classify with examples and add the chemistry of Atropine.

2. Briefly explain on the following reactions.
   a) Clemmenson's reduction b) Beckmann rearrangement
   c) Meerwin – Pondroff reduction d) Birch reduction.

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

1. Write the applications of periodic acid and mercuric acetate.
2. Explain the chemistry of Vitamin D.
3. Discuss the stereochemistry of cyclic compounds.
4. Briefly explain on the conventions used in stereochemistry.
5. Give an account on synthetic method of preparation and reactions of
   a) Acridine b) Phenothiazine
6. Explain the chemistry and uses of camphor.
7. Discuss the chemistry of Folic acid.
8. Explain the following reactions: a) Friedel-craft acylation of thiophene
   b) Reimer-Tiemann Formylation of indole.

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

1. Write the structures of Xanthine bases.
2. What is meant by chirality? Give an example.
3. What happens when methyl substituted pyrazole is oxidized by potassium permanganate?
4. Give the classification of flavonoids.
5. What is alternating axis of symmetry?
6. Give the structure and numbering of digoxin.
7. What is meant by catalytic hydrogenation?
8. Define isomers and isomerism.
9. Write the pharmacological activity of ephedrine.
10. Write the molecular formula for monoterpenoids and sesquiterpenoids.

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