

B. PHARMACY DEGREE EXAMINATION
SECOND YEAR – (NON-SEMESTER)
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. a) What is Racemic modification? Write any two methods of preparation of Racemic modification.
b) Explain the different methods that are utilized for resolution of Racemic modification.
2. Describe the methods of preparation and chemical reactions of
a) Indole b) Quinoline.

II. Write notes on:

(8 x 5 = 40)

1. Describe the stereochemistry of cyclic compounds.
2. What is conformational analysis? Explain the conformational analysis of cyclohexane.
3. Explain the reaction and mechanism of Beckman rearrangement.
4. Discuss the chemistry and uses of Menthol.
5. Explain the chemistry of Citral.
6. Describe the chemistry of Folic acid.
7. Discuss the chemistry of Uric acid.
8. Explain the modern theory of double bonds in geometrical isomerism.

III. Short answers on:

(10 x 2 = 20)

1. What is Stereomutation?
2. Write any two reactions of Indole.
3. Give the synthetic applications of Mercuric acetate.
4. Write any two reactions of acridine.
5. What is Stereoselective synthesis?
6. Write the structure of Papaverine and Ephedrine.
7. Give the structure and uses of Vitamin B₁.
8. Define alkaloids and give examples.
9. Sketch the structures of Caffeine and Theobromine.
10. What is catalytic hydrogenation?
