

VINAYAKA MISSION'S RESEARCH FOUNDATION
(Deemed to be University) , SALEM

B.PHARM. DEGREE EXAMINATION – October 2021
Fourth Semester

PHARMACEUTICAL ORGANIC CHEMISTRY - III

Time : Three hours

Maximum: 75 marks

I. Write essays on any **TWO** questions: (2 x 10 = 20)

1. Define racemic modification and explain the methods of resolution of racemic modification. (2+8)
2. Define and classify heterocyclic compounds with its nomenclature.(2+3+5)
3. Explain the stability of the possible conformations for ethane with the help of a potential energy diagram.

II. Write short answers on any **SEVEN** questions: (7 x 5 = 35)

4. Write a note on sequence rules with example.
5. Explain the aromaticity and basicity of pyrrole and pyridine. (2 ½ + 2 ½)
6. Give the reaction, mechanism and importance of Beckmann rearrangement. (1+2+2)
7. Explain the following reaction. (2 ½ + 2 ½)
 - i) Reimer – Tiemann reaction.
 - ii) Skraup Synthesis.
8. Explain optical isomerism in meso – tartaric acid.
9. Explain E – Z system of nomenclature.
10. Compare Enantiomers and Diastereomers.
11. Write any two methods of preparation and three reactions of pyrimidine. (2+3)
12. Brief note on asymmetric synthesis.

III. Write short notes on : (10 x 2 = 20)

13. What is chichibabin reaction?
14. Halogenation reaction of quinoline.
15. Write the structure and numbering of
 - i) Isoquinoline (1)
 - ii) Phenothiazine (1)
16. Define chirality with example.
17. Define Birch reduction with example.
18. List out the metal hydrides used in reduction reaction with an application of any one. (½ + 1 ½)
19. Cis – Trans isomerism.
20. Synthesis of acridine.
21. Give any two reactions of Furan.
22. Define relative and absolute configuration. (1+1)
