Sl.No: M2125 **Course Code: BP401T**

VINAYAKA MISSION'S RESEARCH FOUNDATION
(DEEMED TO BE UNIVERSITY), SALEM

B.PHARM. DEGREE EXAMINATION – July 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. Describe about absolute and relative configuration. (5+5)
2. Write the methods of preparations and reactions of quinoline. (5+5)
3. Briefly explain on the following reactions
   i) Birch reduction ii) Beckmann's rearrangement (5+5)

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

4. List out the methods used in reduction reaction. Write the reaction, mechanism and application of any one method. (½+1 ½+ 1 ½+1 ½)
5. Define and explain the various elements of symmetry with examples.
6. Explain the nomenclature of heterocyclic compounds.
7. Define and explain the racemic modification. (1+4)
8. Describe the aromaticity and reactions of Thiophene. (2½+2½)
9. Give the reaction and mechanism of Schmidt rearrangement. (2½+2½)
10. Elaborate the modern theory of double bonds.
11. Explain the chemistry of pyridine.
12. Write a note on stereo chemistry of cyclic compounds.

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

13. Define Enantiomers.
14. Write the structure and numbering of any two azepine. (1+1)
15. Define isomers and isomerism. (1+1)
16. Define asymmetric synthesis.
17. Define stereoselective and stereospecific synthesis. (1+1)
18. Write conformations of mono substituted cyclohexcone.
19. Define Racemisotion.
20. Note on metal hydride reduction reaction with the application of any one. (1+1)
21. What is the use of nitro benzene in Skraup's synthesis?
22. Write any two reactions of Inidazole. (1+1)

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