

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LP 344]

OCTOBER 2019

Sub. Code: 2905

**M.PHARM. DEGREE EXAMINATION  
FIRST YEAR  
BRANCH II – PHARMACEUTICAL CHEMISTRY  
PAPER II – ADVANCED ORGANIC CHEMISTRY**

*Q.P. Code: 262905*

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Outline the mechanism and discuss the synthetic importance of the following:
  - a) Mannich reaction.
  - b) Hoffman rearrangement.
  - c) Michael reaction.
2. Explain in detail about the Stereochemistry of five membered, six membered and fused ring system of heterocyclic compounds.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Write a note on Chemical bonding.
2. Write about the neighbouring group assistance in free radical reactions.
3. Discuss on the importance of Chiral drugs.
4. Write a note on Retrosynthetic analysis.
5. Discuss the basic principle involved in the Photochemical reactions.
6. Write a note on hydrolysis of ester, in which the role played by the catalyst.
7. Outline the mechanism involved in the Cyclo addition of pericyclic reaction.
8. Give the mechanism and applications of Ozonolysis.
9. Give an account of addition reactions to carbon-carbon multiple bonds.
10. Write a note on Acids and Bases.

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