

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

**[PHARMD 0321]**

**MARCH 2021**

**Sub. Code: 3804**

**(OCTOBER 2020 EXAM SESSION)**

**PHARM. 'D' DEGREE EXAMINATION**

**FIRST YEAR (2009-2010 Regulation)**

**PAPER IV – PHARMACEUTICAL ORGANIC CHEMISTRY**

***Q.P. Code : 383804***

**Time : Three hours**

**Maximum : 70 Marks**

**I. Elaborate on:**

**(4 x 10 = 40)**

1. Explain the mechanism and reaction involved in
  - a) Sandmeyer's reaction.
  - b) Hofmann rearrangement.
2. Explain the mechanism, kinetics and orientation of E1 and E2 reactions.
3. Describe briefly about Baeyer strain theory by depicting the orbital picture of angle strain of various cyclo alkanes.
4. Enumerate the mechanism involved the peroxide initiated addition of hydrogen bromide to alkenes.

**II. Write notes on:**

**(6 x 5 = 30)**

1. Define oxidation. Write a note on the types of oxidizing agents with examples.
2. Add a note on the acidity of Phenols.
3. Write the preparation, tests for purity, assay and uses of Mephesisin.
4. Enumerate briefly on the conversion of carboxylic acid into its various derivatives.
5. Write a note on activating and deactivating ortho, para and meta directing groups.
6. Write a note on Walden inversion.

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