

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

**[M.PHARM 0823]**

**AUGUST 2023  
(APRIL 2023 EXAM SESSION)**

**Sub. Code: 2942**

**M.PHARMACY DEGREE EXAMINATION  
SEMESTER - I (PCI New Regulations 2016)  
PHARMACEUTICAL CHEMISTRY - MPC  
PAPER II - ADVANCED ORGANIC CHEMISTRY - I**

*Q.P. Code: 262942*

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 75 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Discuss briefly the following reactions with mechanism and application of following named reactions:
  - a) Knorr pyrazole synthesis.
  - b) Traube purine synthesis.
  - c) Pinner pyrimidine synthesis.
2. Discuss the mechanism and factors influence in Nucleophilic uni- and bimolecular reactions (SN1 and SN2).

**II. Write notes on:**

**(7 x 5 = 35)**

1. Explain the preparation and application of Aluminium isopropoxide.
2. Give the synthetic applications of Mannich reaction.
3. Discuss the protection of Carbonyl group.
4. Give the synthesis of Alprazolam and Thioguanine.
5. Write about the basic principles and advantages of Retrosynthesis in organic chemistry.
6. Give the synthetic application of Ullmann coupling reaction.
7. Explain with suitable examples of Organic intermediate Carbocations.

\*\*\*\*\*