

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

[LQ 0121]

**JANUARY 2021**

**Sub. Code: 2948**

**(APRIL 2020 EXAM SESSION)**

**M.PHARMACY DEGREE EXAMINATION**

**SEMESTER-II (PCI New regulations 2016)**

**PHARMACEUTICAL CHEMISTRY – MPC**

**PAPER IV – PHARMACEUTICAL PROCESS CHEMISTRY**

***Q.P. Code : 262948***

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 75 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Discuss elaborately about nitrating agents, aromatic nitration with kinetics and mechanism and mixed acid for nitration.
2. a) Write a detailed note about In-process control and validation of large scale process.  
b) Explain azeotropic and steam distillation methods with suitable examples.

**II. Write notes on:**

**(7 x 5 = 35)**

1. Catalytic hydrogenation.
2. Production of Simvastatin.
3. Characteristics of cost-effective routes.
4. Types of fire and fire extinguishers.
5. Ozonolysis.
6. Crystallization from aqueous and non aqueous solutions.
7. Pressure and vacuum filtration.

\*\*\*\*\*