

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

**[MPHARM 0921]**

**SEPTEMBER 2021  
(OCTOBER 2020 EXAM SESSION)**

**Sub. Code: 2987**

**M.PHARMACY DEGREE EXAMINATION  
SEMESTER-II (PCI New regulations 2016)  
PHARMACOLOGY - MPL  
PAPER III – PRINCIPLES OF DRUG DISCOVERY  
*Q.P. Code : 262987***

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 75 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain in detail the rationale and practical considerations involved in prodrug design.
2. Discuss in detail the application of NMR and X ray crystallography in protein structure prediction.

**II. Write notes on:**

**(7 x 5 = 35)**

1. Explain the relation between Hansch and Free Wilson analysis.
2. Discuss the role of Bioinformatics in target discovery and validation.
3. Write a note on small interfering RNA (siRNA).
4. Denovo drug design.
5. Enumerate the differences between SAR and QSAR.
6. Write a note on Comparative Molecular Field Analysis (COMFA).
7. Structure based drug design.

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