

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

[LM 345]

MAY 2018

Sub. Code: 2906

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

*Q.P. Code : 262906*

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. a) Elaborate various QSAR techniques like Free Wilson analysis, Hansch approach and mixed analysis.  
b) Explain elaborately the stereo-chemical aspects in drug action.
2. Discuss in detail about the medicinal chemistry aspects of Anti-hypertensive agents.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Brief out analog design based on bio-isosterism and alteration of chain branching.
2. Explain in detail about the manufacture of sulphamethoxazole.
3. Write a note on Anti-neoplastic anti-metabolites.
4. Explain briefly the importance of Enantio-selectivity in absorption, distribution, metabolism and elimination of drugs.
5. Briefly discuss about the medicinal importance of prostaglandins.
6. Discuss the role of molecular mechanics in drug design techniques.
7. Write a note on regression analysis and partial least square analysis.
8. Brief on immune response.
9. Explain briefly about irreversible proton pump inhibitors.
10. Explain the rationale of prodrug design with emphasis to the medicinal applications.

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