

[LH 352]

OCTOBER 2015

Sub. Code: 2913

**M.PHARM. DEGREE EXAMINATION  
FIRST YEAR  
BRANCH IV – PHARMACOLOGY  
PAPER IV – DRUG DESIGN AND MOLECULAR PHARMACOLOGY**

*Q.P. Code : 262913*

**Time : Three hours**

**Maximum : 100 marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain in detail about the various disease targets for gene therapy. Write about pharmacokinetics of protein drugs.
2. a) Explain signal transduction pathways for G-protein coupled receptors.  
b) What are ion channels? Explain how ion channels act as drug targets.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Discuss receptor dimerization and its importance in drug design.
2. What do you understand by isosterism and steric behaviour?
3. Write a note on partition coefficient.
4. Explain briefly about electronic parameters used in QSAR.
5. Write a note on Proteomics.
6. Describe the clinical applications of gene therapy.
7. Explain about the identification of a pharmacophore in CADD.
8. Write a note on gene mapping.
9. Write about signal transduction pathway.
10. Write a note on Array technology.

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