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R-5508

M. Pharm. (Part - I) Examination

May / June – 2010

Cellular & Molecular Pharmacology

Time : **3** Hours] [Total Marks : **70**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **M. Pharm. (Part - 1)**

Name of the Subject :

☛ **Cellular & Molecular Pharmacology**

☛ Subject Code No. : **5 5 0 8** ☛ Section No. (1, 2,.....) : **1&2**

Seat No. :

Student's Signature

(2) Answer the questions in two **separate** sections.
(3) Attempt all questions.
(4) Figures to the right indicate marks.

SECTION-I

1 Comment on the following : (any **five**) **5×2=10**

(i) The parathyroid harmonie increases calcium excretion.
(ii) Therapeutic uses of 5-HT antagonists.
(iii) Vitamin K enhances the anticoagulant property of coumarins.
(iv) Angiotensinogen synthesis is stimulated by angiotensin II.
(v) Name two immunosupressants.
(vi) Write the therapeutic uses of fat soluble vitamins.

2 Attempt any **four** of the following : (any **four**) **4×4=16**

(i) Explain Clark's occupation theory of drug receptor interaction.
(ii) Explain the passages of molecules across the cell membranes.
(iii) Explain various drug-drug interactions due to enzyme induction and inhibition with suitable examples.
(iv) Explain plateau principle.
(v) What is the mechanism of reentrant arrythmia?
(vi) Discuss signaling pathways that result in apoptosis.

3 Write a note on the following : (any **three**) **3×3=9**

(i) Transmembrane signaling mechanism
(ii) Protein binding
(iii) Pharmacology of potassium channels
(iv) Gene cloning.

SECTION-II

4 Attempt : (any **five**) **5×2=10**

(i) Muscarnic receptors
(ii) Choose the drug depressing erythrogenesis.
(iii) Classify different types of drug antagonism.
(iv) Write the therapeutic uses of folic acid.
(v) Suggest drug for treatment of hypovolumic shock.
(vi) Write the pharmacology of purines.
(vii) What are cytokines?

5 Attempt any **two** of the following : **2×6=12**

(i) Discuss the impact of receptor malfunction in pharmacotherapeutics.
(ii) Write a note on GABA receptors with suitable agonists and antagonists.
(iii) Explain the genetic polymorphism in drug metabolizing enzymes.

6 (a) Give the mechanism of action of the following : (any **three**) **3×2=6**

(i) Cyclosporine-A
(ii) Nicotinic Acid
(iii) Aminocaproic acid
(iv) Bradykinin.

(b) Write notes on the following : (any **two**) **2×4=8**

(i) Pharmacology of calcium channels and their modulators.
(ii) Dopamineegic pathways and their functions.
(iii) Leucotrines
(iv) NMDA receptors.