



R-5508
M. Pharm. (Part - I) Examination
May / June - 2010
Cellular & Molecular Pharmacology

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

<p>नीचे दर्शाविए निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : M. Pharm. (Part - 1)</p> <p>Name of the Subject : Cellular & Molecular Pharmacology</p> <p>Subject Code No. : 5 5 0 8 Section No. (1, 2,.....) : 1&2</p>	<p>Seat No. : <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"><tr><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td></tr></table> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div></p>						

- (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 hormone 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 immunosuppressants.
 - (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 arrhythmia?
 - (vi) Discuss signaling pathways that result in apoptosis.

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[Contd...

- 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 erythropoiesis.
 - (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 : **3×2=6**
(any **three**)
- (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) Dopamineergic pathways and their functions.
 - (iii) Leucotrienes
 - (iv) NMDA receptors.
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