

MANIPAL UNIVERSITY

M. Sc. (FINAL) PHARMACOLOGY DEGREE EXAMINATION – AUGUST 2007

PAPER I: GENERAL PHARMACOLOGY, CLINICAL PHARMACOLOGY, EXPERIMENTAL PHARMACOLOGY, BIOLOGICAL STANDARDIZATION AND BIostatISTICS

Wednesday, August 01, 2007

Time available: 3 Hours

Maximum Marks: 100

- ✍ **Answer ALL the questions.**
- ✍ **Write your answers that are brief, clear, relevant and legible.**
- ✍ **Illustrate your answers with neatly drawn and correctly labelled diagrams wherever appropriate.**

1. Discuss metabolism of drugs in the body with special reference to drug interactions.
(20 marks)

2. Discuss the methods to evaluate a new compound for antiinflammatory activity.
(20 marks)

3. Discuss the functional aspects of cholinergic receptors and describe how drugs modify these actions.
(20 marks)

4. Write briefly on:
 - 4A. Rational drug use.
 - 4B. New drug delivery systems.
 - 4C. Pharmacogenetics.
 - 4D. Plasma protein binding of drugs.

(10×4 = 40 marks)

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PAPER II: SYSTEMIC PHARMACOLOGY: ANS, CNS, CVS, GIT, HEMOPOIETIC, RENAL AND RESPIRATORY SYSTEMS, AUTOCOIDS

Thursday, August 02, 2007

Time available: 3 Hours

Maximum Marks: 100

- ✍ **Answer ALL the questions.**
- ✍ **Write your answers that are brief, clear, relevant and legible.**
- ✍ **Illustrate your answers with neatly drawn and correctly labelled diagrams wherever appropriate.**

1. Draw the diagram of a nephron. Depict the major site of action of diuretics. Discuss in detail the pharmacology of loop diuretics.

(20 marks)

2. Write the structure activity relationship of sympathomimetics.

(20 marks)

3. Classify anticoagulants with examples. Explain the pharmacology of oral anticoagulants.

(20 marks)

4. Write briefly on:

4A. Newer antiepileptics.

4B. Non-sedative antihistamics.

4C. Proton pump inhibitors.

4D. ACE inhibitors.

(10×4 = 40 marks)

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**PAPER III: SYSTEMIC PHARMACOLOGY: CHEMOTHERAPY, IMMUNOTHERAPY,
ENDOCRINES AND MISCELLANEOUS TOPICS**

Friday, August 03, 2007

Time available: 3 Hours

Maximum Marks: 100

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- ✍ **Answer ALL the questions.**
 - ✍ **Write your answers that are brief, clear, relevant and legible.**
 - ✍ **Illustrate your answers with neatly drawn and correctly labelled diagrams wherever appropriate.**

1. Discuss the recent advances in the chemotherapy of HIV infection.

(30 marks)

2. Write briefly on:

2A. Natural products in cancer chemotherapy.

2B. Discuss in detail the treatment of grand mal epilepsy.

(20×2 = 40 marks)

3. Write short notes on:

3A. Antioestrogens.

3B. Newer insulins.

3C. Chronopharmacology.

(10×3 = 30 marks)