

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

M. Sc. (FINAL) PHARMACOLOGY DEGREE EXAMINATION – JULY 2006

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

Monday, July 03, 2006

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 how genetics influences kinetics and dynamics of drugs. Explain with suitable examples.

(20 marks)

2. Describe in detail the evaluation of new anti-anxiety agents.

(20 marks)

3. Discuss on G – Proteins.

(20 marks)

4. Write briefly on:

4A. Therapeutic drug monitoring.

4B. Radio immunoassay.

4C. Statistical significance.

4D. Volume of distribution.

(10×4 = 40 marks)

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M. Sc. (FINAL) PHARMACOLOGY DEGREE EXAMINATION – JULY 2006

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

Tuesday, July 04, 2006

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. Diagrammatically depict the anatomy of a nephron and give the functional importance of its divisions with reference to the sites of action of diuretics.

(20 marks)

2. Classify antipsychotic drugs. Discuss the mechanism of action, uses and adverse effects of any one of them.

(20 marks)

3. Discuss the therapeutic uses and adverse effects of β -blockers.

(20 marks)

4. Write briefly on:

4A. Atropine substitutes.

4B. Drugs in the management of migraine

4C. H_2 – blockers.

4D. HMG-CoA reductase inhibitors.

(10×4 = 40 marks)

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M. Sc. (FINAL) PHARMACOLOGY DEGREE EXAMINATION – JULY 2006

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

Wednesday, July 05, 2006

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. Enumerate β -lactam antibiotics. Discuss the mechanism of action, therapeutics uses and toxicities of any one of them.
(20 marks)

2. Discuss the clinical pharmacology of sex hormone antagonists.
(20 marks)

3. Classify drugs used in cancer chemotherapy based on mechanism / site of action. Add a note on biological response modifiers.
(20 marks)

4. Write briefly on:
 - 4A. Immunostimulants.
 - 4B. Anti-obesity drugs.
 - 4C. Uses and misuses of anabolic steroids.
 - 4D. Antitussives.

(10×4 = 40 marks)

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M. Sc. (FINAL) PHARMACOLOGY DEGREE EXAMINATION – DECEMBER 2006

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

Monday, December 04, 2006

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 how drugs act? Describe how presence of second drug modifies the drug action.
(20 marks)

2. Discuss the methods to evaluate antiinflammatory drugs.
(20 marks)

3. Discuss in brief bio–transformation of drugs with examples.
(20 marks)

4. Write briefly on:
 - 4A. Plasma–half–life of drugs
 - 4B. Ethics of animal experimentation.
 - 4C. Confidence limits.
 - 4D. Therapeutic drug monitoring.

(10×4 = 40 marks)

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

Tuesday, December 05, 2006

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 pharmacology of morphine. Add a note on opioid receptors.
(20 marks)

2. Discuss the pharmacology and limitation of enalapril.
(20 marks)

3. Classify the sympathomimetic drugs based on their utility. Discuss the therapeutic uses and adverse effects of any one of them.
(20 marks)

4. Write briefly on:
 - 4A. NMDA receptors.
 - 4B. Desmopressin.
 - 4C. COX-2 inhibitors.
 - 4D. Potassium channel openers.

(10×4 = 40 marks)

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

Wednesday, December 06, 2006

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. Classify drugs used in the therapy of malaria. Describe the pharmacological action, adverse effects and therapeutic uses of the most commonly used antimalarial agent.

(30 marks)

2. Write on:

2A. Current status of fluoro quinolones.

2B. Discuss the therapeutic uses of prostaglandins.

(20+20 = 40 marks)

3. Write briefly on:

3A. Gene therapy

3B. Cell cycle specific agents

3C. Adverse effects of glucocorticoids.

(10×3 = 30 marks)