

MANIPAL ACADEMY OF HIGHER EDUCATION
(Deemed University)

MSc (FINAL) PHARMACOLOGY DEGREE EXAMINATION – JULY 2002

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

Monday, July 01, 2002

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.
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1. Discuss the methods of elimination of drugs and add a note on factors affecting renal elimination of drugs.

(20 marks)

2. Discuss the methods to evaluate a new compound for its anticonvulsant activity.

(20 marks)

3. Discuss the Transmembrane signaling mechanisms in drug action.

(20 marks)

4. Write briefly on:

(10 x 4 = 40 marks)

4A. Placebo

4B. Essential drug concept

4C. Acute toxicity studies

4D. Targeted drug delivery system

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**PAPER II : SYSTEMATIC PHARMACOLOGY, ANS, CNS, CVS, GIT, HEMOPOIETIC,
RENAL AND RESPIRATORY SYSTEMS, AUTACOIDS**
Tuesday, July 02, 2002

Time available: 3 Hours

Maximum Marks: 100

- 1A. Diagrammatically depict the Renin – angiotenin-aldosterone system and show the site of action of drugs affecting this system.
- 1B. Discuss the pharmacological actions, uses and adverse effects of ACE inhibitions.

(20 marks)

2. Classify local anaesthetics. Describe the mechanism of action, uses and adverse effects of local anaesthetics.

(20 marks)

3. Discuss the mechanism of action of drugs useful in angina pectoris.

(20 marks)

4. Write briefly on:

(10x4 = 40 marks)

- 4A. Atypical Antipsychotics
4B. Protone pump inhibitors
4C. Alpha2 agonists
4D. Cox2 inhibitors

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

Wednesday, July 03, 2002

Time available: 3 Hours

Maximum Marks: 100

1. Classify drugs useful in the treatment of diabetes mellitus. Discuss the mechanism of action, uses and adverse effects of oral antidiabetics.

(20 marks)

2. Depicting the life cycle of malaria parasite mark the site of action of antimalarial drugs. Add a note on Chemotherapy of malaria.

(20 marks)

3. Classify drugs useful in tuberculosis. Discuss the rationale for combining drugs in tuberculosis. Write a commonly used treatment regimen for pulmonary tuberculosis.

(20 marks)

4. Write briefly on:

(10 x 4 = 40 marks)

- 4A. Antiandrogens
- 4B. Aminopenicillins
- 4C. Bisphosphonates
- 4D. Albendazole

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MSc (FINAL) PHARMACOLOGY DEGREE EXAMINATION – DECEMBER 2002

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

Monday, December 02, 2002

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.
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1. Describe various processes of biotransformation with examples.
(20 marks)
2. Explain the procedures to evaluate a new chemical entity having analgesic action.
(20 marks)
3. Give an account of drug dependence.
(20 marks)
4. Write briefly on:
(10 x 4 = 40 marks)
 - 4A. Newer drug delivery systems
 - 4B. Pharmacokinetic drug interaction
 - 4C. ANOVA
 - 4D. Therapeutic index.

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**PAPER II: SYSTEMIC PHARMACOLOGY: ANS, CNS, CVS, GIT, HEMOPOIETIC,
RENAL AND RESPIRATORY SYSTEMS, AUTACOIDS**
Tuesday, December 03, 2002

Time available: 3 Hours

Maximum Marks: 100

1. Explain the adrenergic transmission and how drugs can modify it.
(20 marks)

2. Discuss the mechanism of action, adverse effects and uses of the salicylates.
(20 marks)

3. Explain the physiology of gastric acid secretion and discuss the advantages and disadvantages of antisecretory drugs.
(20 marks)

4. Write briefly on:
(10x4 = 40 marks)
 - 4A. Fibrinolytics
 - 4B. Frusemide
 - 4C. Sodium cromoglycate
 - 4D. Ondansetron.



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**PAPER III: SYSTEMIC PHARMACOLOGY: CHEMOTHERAPY, IMMUNOTHERAPY,
ENDOCRINES AND MISCELLANEOUS TOPICS**
Wednesday, December 04, 2002

Time available: 3 Hours

Maximum Marks: 100

1. Explain the mechanism of action, therapeutic uses and adverse effects of tetracyclines.
(20 marks)

2. Explain the general principles in cancer chemotherapy and add a note on general toxicity of cytotoxic drugs.
(20 marks)

3. Explain the Pharmacological actions and adverse effects of glucocorticoids.
(20 marks)

4. Write briefly on:
(10 x 4 = 40 marks)
 - 4A. Anabolic steroids
 - 4B. Preparations of insulin
 - 4C. Third generation Cephalosporins
 - 4D. Newer macrolides.