MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (PHARMACOLOGY) DEGREE EXAMINATION – JULY 2006

SUBJECT: PAPER I: BASIC SCIENCE RELATED TO PHARMACOLOGY & BASIC PRINCIPLES IN PHARMACOLOGY

Monday, July 03, 2006

Time: 3 Hrs. Max. Marks: 100

✍ **Answer all the questions**

1. Discuss various factors governing the selection of a drug and optimization of the dosage regimes.

(30 marks)

2. Discuss:

2A. Enzymes as targets of drug action.

2B. Impact of SAR on clinical use of drugs.

(20×2 = 40 marks)

3. Write short notes on:

3A. Bioequivalence.

3B. Co transmitters and their role.

3C. Drug nomenclature.

(10×3 = 30 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (PHARMACOLOGY) DEGREE EXAMINATION – JULY 2006

SUBJECT: PAPER II: EXPERIMENTAL PHARMACOLOGY, BIOMETRICS AND CLINICAL TRIALS

Tuesday, July 04, 2006

Time: 3 Hrs. Max. Marks: 100

Answer all the questions

1. Discuss the methods involved in screening a compound supposed to have antiulcer activity.

(30 marks)

2A. Rat as an experimental animal – discuss.

2B. Discuss the role of pharmacokinetics in the safety evaluation and approval of a new drug.

(20×2 = 40 marks)

3. Write short notes on:

3A. Writing levers in experimental pharmacology.

3B. ANOVA.

3C. Therapeutic drug monitoring.

(10×3 = 30 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (PHARMACOLOGY) DEGREE EXAMINATION – JULY 2006

SUBJECT: PAPER III: SYSTEMIC PHARMACOLOGY AND THERAPEUTICS

Wednesday, July 05, 2006

Time: 3 Hrs. Max. Marks: 100

Answer all the questions.

1. Discuss the pharmacotherapy of pain.

(30 marks)

2. Discuss the drugs modifying the fluid state of blood.

(30 marks)

3. Write briefly on:

3A. Role of enzymes in therapy.

3B. Feedback inhibition of hormone release.

3C. Insulin sensitizers.

3D. Environmental pollutants.

(10×4 = 40 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (PHARMACOLOGY) DEGREE EXAMINATION – JULY 2006

SUBJECT: PAPER IV: APPLIED PHARMACOLOGY, TOXICOLOGY, PHARMACOEPIDEMIOLOGY & RECENT ADVANCES

Thursday, July 06, 2006

Time: 3 Hrs. Max. Marks: 100

Answer all the questions.

1. Discuss the therapeutic importance of various agonists and antagonists of different 5-HT receptors.

(30 marks)

2A. Describe the role of growth factors and their analogues in therapeutics.

2B. Explain the clinical uses of leukotriene synthesis inhibitors and their receptor antagonists.

(20×2 = 40 marks)

3. Critically discuss the importance of following drugs in clinical medicine:

3A. Cytoprotective drugs used in peptic ulcer.

3B. Drugs for impotence.

3C. Topical antifungal drugs.

(10×3 = 30 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (PHARMACOLOGY) DEGREE EXAMINATION – JULY 2006

SUBJECT: PAPER IV: APPLIED PHARMACOLOGY, TOXICOLOGY, PHARMACOEPIDEMIOLOGY & RECENT ADVANCES

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(10×3 = 30 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (PHARMACOLOGY) DEGREE EXAMINATION – DECEMBER 2006

SUBJECT: PAPER I: BASIC SCIENCE RELATED TO PHARMACOLOGY & BASIC PRINCIPLES IN PHARMACOLOGY

Monday, December 04, 2006

Time: 3 Hrs. Max. Marks: 100

Answer all the questions

1. Discuss the physiology of urine formation and its modification by drugs.

(30 marks)

2A. Discuss the pharmacological role of presynaptic receptors.

2B. Discuss the kinetics of inhalational route of drug administration.

(20+20 = 40 marks)

3. Write briefly on:

3A. G-proteins.

3B. Drugs and subarachnoid space.

3C. MAO inhibitors.

(10×3 = 30 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (PHARMACOLOGY) DEGREE EXAMINATION – DECEMBER 2006

SUBJECT: PAPER II: EXPERIMENTAL PHARMACOLOGY, BIOMETRICS AND CLINICAL TRIALS

Tuesday, December 05, 2006

Time: 3 Hrs. Max. Marks: 100

✍ **Answer all the questions**

1. Discuss the methods used in the preclinical evaluation of antidepressants.

(30 marks)

2. Write short essays on:

2A. Modified Declaration of Helsinki.

2B. Transgenic animals in experimental pharmacology.

(20×2 = 40 marks)

3. Write briefly on:

3A. Sampling.

3B. ELISA.

3C. Postmarketing surveillance.

(10×3 = 30 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (PHARMACOLOGY) DEGREE EXAMINATION – DECEMBER 2006

SUBJECT: PAPER III: SYSTEMIC PHARMACOLOGY AND THERAPEUTICS

Wednesday, December 06, 2006

Time: 3 Hrs. Max. Marks: 100

✍ **Answer all the questions.**

1. Describe the pathophysiology of cardiac arrhythmias and explain how clinically useful drugs modify it.

(30 marks)

2A. Explain the mechanism of action and discuss the therapeutic status of antidepresants.

2B. Discuss anticholinesterases as therapeutic agents.

(20×2 = 40 marks)

3. Write briefly on:

3A. Proton pump inhibitors.

3B. SERMS.

3C. Leucotriene antagonists.

(10×3 = 30 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (PHARMACOLOGY) DEGREE EXAMINATION – DECEMBER 2006

SUBJECT: PAPER IV: APPLIED PHARMACOLOGY, TOXICOLOGY, PHARMACOEPIDEMIOLOGY & RECENT ADVANCES

Thursday, December 07, 2006

Time: 3 Hrs. Max. Marks: 100

✍ **Answer all the questions.**

1. What are the recent advances in the treatment of non-insulin dependent diabetes mellitus?

(30 marks)

2A. Discuss newer antiepileptic drugs.

2B. Discuss natural products as cancer chemotherapeutic agents.

(20+20 = 40 marks)

3. Write briefly on:

3A. Drugs affecting leukotriene pathway.

3B. Non-nucleoside reverse transcriptase inhibition.

3C. Ethical issues in gene therapy.

(10×3 = 30 marks)