Reg. No. | | | | | | | | | |

MANIPAL UNIVERSITY

MD (PHARMACOLOGY) DEGREE EXAMINATION – APRIL 2013

SUBJECT: PAPER I: GENERAL PHARMACOLOGICAL PRINCIPLES AND APPLIED SCIENCES

Tuesday, April 02, 2013

Time: 14:00 – 17:00 Hrs.   Max. Marks: 100

✍ Answer ALL the questions.

✍ Write your answers that are brief, clear, relevant and legible.

✍ Illustrate your answers with neatly drawn and correctly labeled diagrams wherever appropriate.

1. **Essay Questions:**

1A. Discuss the effects of liver and renal diseases on drug elimination with suitable examples.

1B. Discuss the transducer mechanisms involved in drug action.

(20×2 = 40 marks)

2. **Write briefly on:**

2A. High-performance liquid chromatography (HPLC)

2B. Rational use of drugs

2C. Solid drug dosage forms

2D. Pharmacodynamic drug interactions

2E. Fixed-dose drug combinations

2F. Loading dose

(10×6 = 60 marks)

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Reg. No.

MANIPAL UNIVERSITY

MD (PHARMACOLOGY) DEGREE EXAMINATION – APRIL 2013

SUBJECT: PAPER II: SYSTEMIC PHARMACOLOGY, CHEMOTHERAPY AND THERAPEUTICS

Wednesday, April 03, 2013

Time: 14:00 – 17:00 Hrs.   Max. Marks: 100

✎   Answer ALL the questions.

✎   Write your answers that are brief, clear, relevant and legible.

✎   Illustrate your answers with neatly drawn and correctly labeled diagrams wherever appropriate.

1.   **Essay Questions:**

1A.   Discuss the pharmacology of drugs affecting the coagulation of blood.

1B.   Discuss the pharmacotherapy of Parkinsonism.

(20×2 = 40 marks)

2.   **Write briefly on:**

2A.   Peroxisome proliferator-activated receptor agonists

2B.   3rd generation cephalosporins

2C.   5HT receptor antagonists

2D.   Drugs used in hypertensive emergency

2E.   Cell cycle kinetics and anticancer effect of drugs

2F.   Conscious sedation

(10×6 = 60 marks)

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MANIPAL UNIVERSITY

MD (PHARMACOLOGY) DEGREE EXAMINATION – APRIL 2013

SUBJECT: PAPER III: EXPERIMENTAL PHARMACOLOGY, BIOASSAY AND STATISTICS

Thursday, April 04, 2013

Time: 14:00 – 17:00 Hrs.   Max. Marks: 100

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

1. **Essay Questions:**

1A. Discuss the methods of preclinical toxicity testing and its importance in drug development.

1B. Discuss the screening methods to evaluate a compound for its anti inflammatory activity.

(20×2 = 40 marks)

2. **Write briefly on:**

2A. Alternatives to use of animals in research

2B. Animal models for testing spatial learning and memory in rats

2C. Types of data presentation

2D. Euthanasia methods in experimental study

2E. Shay rat

2F. Guinea-pig as experimental animal

(10×6 = 60 marks)

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MANIPAL UNIVERSITY

MD (PHARMACOLOGY) DEGREE EXAMINATION – APRIL 2013

SUBJECT: PAPER IV: CLINICAL PHARMACOLOGY AND RECENT ADVANCES

Friday, April 05, 2013

Time: 14:00 – 17:00 Hrs.   Max. Marks: 100

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

1. **Essay questions:**

1A. Discuss the recent advances in antiretroviral drug therapy. Add a note on current NACO guidelines for the treatment and post-exposure prophylaxis of HIV infection.

1B. Discuss the steps involved in adverse drug reaction monitoring. Add a note on the pharmacovigilance programs of India.

(20×2 = 40 marks)

2. **Write briefly on:**

2A. Total intravenous general anesthesia

2B. Recent advances in the management of Alzheimer's disease

2C. Calcimimetics

2D. Sugammadex

2E. Good manufacturing practices

2F. Phase IIIa clinical trial

(10×6 = 60 marks)

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