

MANIPAL UNIVERSITY

MD (PHARMACOLOGY) DEGREE EXAMINATION – OCTOBER 2017

SUBJECT: PAPER I: GENERAL PHARMACOLOGICAL PRINCIPLES AND APPLIED SCIENCES

Tuesday, October 03, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Essay Questions:

1. Explain various phase 1 biotransformation reactions.

(15 marks)

2. Discuss pharmacogenomics with examples.

(15 marks)

3. Write briefly on:

3A. Graded dose response curve

3B. Type B adverse drug reactions

3C. Enzyme linked receptors

3D. Sources of drugs

3E. Drug nomenclature

3F. Tolerogens

3G. Minimum inhibitory concentration

3H. Factors governing the choice of route of drug administration

3I. Competitive antagonism

3J. Carrier mediated transport

(7 marks × 10 = 70 marks)



MANIPAL UNIVERSITY**MD (PHARMACOLOGY) DEGREE EXAMINATION – OCTOBER 2017****SUBJECT: PAPER II: SYSTEMIC PHARMACOLOGY, CHEMOTHERAPY AND THERAPEUTICS**

Wednesday, October 04, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Essay Questions:**

1. Explain adrenergic receptors and discuss the drugs modifying their function.

(15 marks)

2. Discuss semi-synthetic penicillins.

(15 marks)

3. **Write briefly on:**

3A. Treatment of neutropenia

3B. m-TOR inhibitors

3C. Vectors for gene therapy

3D. Drugs for irritable bowel syndrome

3E. Drugs for ectoparasites

3F. Oximes

3G. Fourth generation cephalosporins

3H. Stanazolol

3I. Mesna

3J. Infliximab

(7×10= 70 marks)



MANIPAL UNIVERSITY**MD (PHARMACOLOGY) DEGREE EXAMINATION – OCTOBER 2017****SUBJECT: PAPER III: EXPERIMENTAL PHARMACOLOGY, BIOASSAY AND STATISTICS**

Thursday, October 05, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Essay questions:**

1. Discuss the in vivo screening methods for anticancer drugs.

(15 marks)

2. Explain the methods involved in testing anti-inflammatory drugs.

(15 marks)

3. **Write briefly on:**

3A. Ultraviolet Erythema

3B. Pentylentetrazole

3C. Forced swim test

3D. Chi-Square test

3E. Conditioned avoidance response

3F. Aconitine induced arrhythmia

3G. Pyloric ligation

3H. Null hypothesis

3I. P value

3J. Screening methods for cough suppressants

(7 marks × 10 = 70 marks)



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MANIPAL UNIVERSITY

MD (PHARMACOLOGY) DEGREE EXAMINATION – OCTOBER 2017

SUBJECT: PAPER IV: CLINICAL PHARMACOLOGY AND RECENT ADVANCES

Friday, October 06, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Essay Questions:

1. Discuss the recent advances in the management of leprosy.

(15 marks)

2. Discuss the mechanism of action of various drugs used in bronchial asthma.

(15 marks)

3. Write briefly on:

3A. Propofol

3B. Hormone replacement therapy

3C. Antiestrogens

3D. Saxagliptin

3E. Erlotinib

3F. Basic principles of human ethics

3G. Importance of therapeutic audit

3H. Erythropoietin

3I. Lead optimization

3J. Methods to prevent adverse effects of drugs

(7 marks × 10 = 70 marks)

