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MANIPAL ACADEMY OF HIGHER EDUCATION

MD (PHARMACOLOGY) DEGREE EXAMINATION – OCTOBER 2019

SUBJECT: PAPER I: GENERAL PHARMACOLOGICAL PRINCIPLES AND APPLIED SCIENCES

Tuesday, October 08, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Essay Questions:

1. Discuss pharmacokinetic drug interactions with suitable examples.

(15 marks)

2. Describe novel methods of drug delivery.

(15 marks)

3. Write briefly on:

3A. ELISA

3B. Drug allergy

3C. Phase II biotransformation reactions

3D. Role of placebo in health and disease

3E. Nuclear receptors

3F. Significance of Structure Activity Relationship

3G. Personalised medicine

3H. Redistribution of drugs

3I. Tachyphylaxis

3J. Lifestyle drugs

(7 marks × 10 = 70 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
MD (PHARMACOLOGY) DEGREE EXAMINATION – OCTOBER 2019
SUBJECT: PAPER II: SYSTEMIC PHARMACOLOGY, CHEMOTHERAPY AND
THERAPEUTICS

Wednesday, October 09, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Essay questions:**

1. Discuss the pharmacotherapy of congestive cardiac failure. (15 marks)

2. Discuss bacterial drug resistance. (15 marks)

3. **Write briefly on:**

3A. Aromatase inhibitors

3B. Sitagliptin

3C. Drugs used in peripheral vascular disease

3D. Selective serotonin norepinephrine reuptake inhibitors

3E. Ivabradine

3F. Levofloxacin

3G. Non benzodiazepine hypnotics

3H. 5HT₄ receptor agonists

3I. Role of Vitamin D in health and disease

3J. Gabapentin

(7 marks × 10 = 70 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION

MD (PHARMACOLOGY) DEGREE EXAMINATION – OCTOBER 2019

SUBJECT: PAPER III: EXPERIMENTAL PHARMACOLOGY, BIOASSAY AND STATISTICS

Thursday, October 10, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Essay questions:**

1. Discuss the screening methods for screening diuretics.

(15 marks)

2. Discuss in brief chemically induced tumor models.

(15 marks)

3. **Write briefly on:**

3A. Repeated measure ANOVA

3B. Dark and bright arena

3C. Screening methods for skeletal muscle relaxant activity

3D. Data presentation

3E. Anesthetics for animal experiments

3F. Methods of blood collection in rats

3G. Methods to screen estrogenic activity

3H. Methods to test nephrotoxicity

3I. Pyrogen testing

3J. Neurogenic hypertension

(7 marks × 10 = 70 marks)

