

Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION
MD (PHARMACOLOGY) DEGREE EXAMINATION – JANUARY 2025
(REGULAR)
PAPER I

Tuesday, January 14, 2025

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions

✍ Essay Questions:

1. Discuss the transducer mechanisms involved in drug action. (15 marks)
2. Discuss Pharmacokinetic drug interactions with suitable examples. (15 marks)
3. **Write briefly on:**
 - 3A. Chiral drugs
 - 3B. Drug prescribing in pregnancy
 - 3C. Carrier mediated drug transport
 - 3D. Types of medication errors and strategies to prevent them
 - 3E. Drug withdrawal reactions
 - 3F. Action of antimalarial drugs at the various stages of life cycle of malarial parasite in man and its relevance in therapy.
 - 3G. Drug selectivity and specificity
 - 3H. Renal disease influencing drug disposition and action
 - 3I. Rectal dosage forms
 - 3J. Factors influencing the induction and recovery of anesthesia by inhalation anesthetics

(7 marks × 10 = 70 marks)



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PAPER II

Wednesday, January 15, 2025

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Essay Questions:

1. Discuss the role and responsibilities of Institutional Ethics Committee.
(15 marks)
2. Discuss rational prescribing of medicines.
(15 marks)
3. **Write briefly on:**
 - 3A. Any two methods of evaluation in Pharmacoeconomics
 - 3B. Therapeutic audit
 - 3C. Chromatography – principles and applications
 - 3D. Therapeutic drug monitoring
 - 3E. Meta-analysis
 - 3F. Drug information services
 - 3G. Chi square test
 - 3H. Post marketing surveillance
 - 3I. Expiry date of pharmaceuticals
 - 3J. Essential medicines

(7 marks × 10 = 70 marks)



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PAPER III

Thursday, January 16, 2025

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Essay Questions:

1. Discuss the various drugs used in the treatment of osteoporosis.
(15 marks)
2. Discuss the therapeutic strategies and the drugs used in management of Parkinsonism.
(15 marks)

3. Write briefly on:

- 3A. Drugs used for treatment of neuropathic pain
- 3B. Direct thrombin inhibitors
- 3C. Nutraceuticals
- 3D. Drugs used to treat benign prostatic hyperplasia
- 3E. Non-cardiac uses of beta adrenergic blockers
- 3F. Uses and adverse effects of doxycycline
- 3G. Aromatase inhibitors
- 3H. Voriconazole
- 3I. Management of acute severe asthma
- 3J. Eplerenone

(7 marks × 10 = 70 marks)



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PAPER IV

Friday, January 17, 2025

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Essay Questions:

1. Discuss the various strategies of COVID-19 therapy. Add a note on different vaccines developed against COVID-19.
(15 marks)

2. Discuss recent advances in the treatment of tuberculosis.
(15 marks)

3. Write briefly on:

- 3A. Drugs obtained from recombinant DNA technology
- 3B. Prostaglandin analogues
- 3C. Patient controlled analgesia
- 3D. Angiogenesis inhibitors in cancer therapy
- 3E. Role of anti-oxidants in clinical practice
- 3F. Oxygen therapy
- 3G. Theranostics
- 3H. Fifth generation cephalosporins
- 3I. Current status of phosphodiesterase inhibitors in therapy
- 3J. Granulocyte colony stimulating factors

(7 marks × 10 = 70 marks)

