

Roll No:

Jamia Hamdard (Deemed to be University)

Examination: M.Sc. Clinical Research, Semester: **II** (2023)

Paper Code and Title: **MCR DCC 101- GENERAL PHARMACOLOGY**

Time: 3 hours

Maximum Marks: 60

Write the roll number at the top immediately on receipt of this question paper. Attempt ALL questions. All parts of a question must be attempted in continuation. Start answering each question on new page.

SECTION-A

All Questions are Compulsory: (10×2=20 Marks)

1. Differentiate between Pharmacokinetic and Pharmacodynamics.
2. Expand NLEM. How many drugs are included in the NLEM 2022 of India?
3. Differentiate between partial agonist and inverse agonist with suitable examples.
4. Define spare receptors. Give suitable examples also.
5. Differentiate between tachyphylaxis and tolerance with suitable examples.
6. Define bioavailability. Which route has highest bioavailability?
7. What are the units of volume of distribution? How can the volume of distribution be greater than the total volume of the body?
8. Write the different phases of drug metabolism.
9. Differentiate between clearance, elimination rate and elimination rate constant.
10. Name at least two drugs which are enzyme inducers.

SECTION-B

All Questions are Compulsory: (5×4=20 Marks)

11. (a) Write in details about sources and nature of drugs OR
(b) Write in details about various routes of drug administration along with their limitations and advantages.
12. (a) Explain the processes involved in the transport of drugs across the cell membrane. OR
(b) Write in details about kinetics of elimination.
13. (a) Write about ion channel receptors with suitable examples. OR
(b) What is therapeutic index? Write about drug interactions at Pharmacokinetic and Pharmacodynamic levels with suitable examples.
14. (a) Describe neurohumoral transmission with neat and clean diagram. OR
(b) Classify cholinergic drugs. Write their uses, common ADRs and contraindications.

SECTION-C

All Questions are Compulsory: (2×10=20 Marks)

15. (a) What are different types of receptors? Explain GPCR with suitable examples. OR
(b) Differentiate between adverse event and adverse drug reactions (ADRs). Classify various ADRs with suitable examples.
16. (a) Classify adrenergic drugs. Write the mechanism of action and uses of adrenaline. OR
(b) Write the mechanism of action, uses, ADRs and contraindication of pilocarpine.