

Advanced Pharmacology Concepts

Pharmacology · Answer Key · 10 Questions

1. Which pharmacokinetic process describes the irreversible removal of a drug from the body, primarily through enzymatic modification in the liver?

- A) Absorption
- B) Distribution
- C) Metabolism**
- D) Excretion

2. The ability of a drug to produce a desired therapeutic effect is primarily determined by its:

- A) Lipid solubility
- B) Molecular weight
- C) Affinity for its receptor and intrinsic activity**
- D) First-pass metabolism

3. Which type of drug interaction occurs when one drug enhances the effect of another drug without directly interacting with the second drug's receptor?

- A) Synergism
- B) Antagonism
- C) Potentiation**
- D) Additive effect

4. Prodrugs are inactive compounds that are metabolised in the body to become:

- A) More toxic
- B) Less potent
- C) Active drugs**
- D) Inactive metabolites

5. The fraction of an administered dose of an intravenous drug that reaches the systemic circulation is:

- A) Volume of distribution
- B) Clearance
- C) Half-life
- D) Bioavailability**

6. Which of the following receptor types is typically a transmembrane protein that, upon ligand binding, directly activates intracellular enzymes?

- A) G protein-coupled receptors
- B) Ligand-gated ion channels
- C) Enzyme-linked receptors**
- D) Intracellular receptors

7. A drug that binds to a receptor but produces no pharmacological effect is known as a(n):

- A) Agonist
- B) Partial agonist
- C) Antagonist**
- D) Inverse agonist

8. The phenomenon where repeated administration of a drug leads to a diminished response is called:

- A) Sensitization
- B) Tolerance**
- C) Idiosyncrasy
- D) Tachyphylaxis

9. Which phase of drug action is concerned with how the body affects the drug, including absorption, distribution, metabolism, and excretion?

- A) Pharmacodynamics
- B) Pharmacotherapeutics
- C) Pharmacokinetics**
- D) Pharmacognosy

10. The therapeutic index of a drug is a measure of its:

- A) Potency
- B) Efficacy
- C) Safety**
- D) Selectivity