

Moscou: Pharmacology for Pharmacy Technicians

Test Bank

Chapter 2: Principles of Pharmacology

TRUE/FALSE

1. The body has to metabolize a drug before it is eliminated.

ANS: T

The body metabolizes the drug and then it is eliminated.

DIF: Cognitive level 2: Interpretation REF: p. 22

2. Drugs that are administered subcutaneously are completely absorbed into the bloodstream given they are injected directly into the vein.

ANS: F

Drugs that are administered intravenously are completely absorbed into the bloodstream given they are injected directly into the vein.

DIF: Cognitive level 2: Interpretation REF: p. 22

3. It is difficult for lipid-soluble drugs to move across a membrane.

ANS: F

Lipid-soluble drugs can move easily across the cell membrane.

DIF: Cognitive level 1: Recall REF: p. 26

4. Most drugs are transported by passive transport.

ANS: T

Most drugs are transported by passive transport.

DIF: Cognitive level 2: Interpretation REF: p. 25

5. Absorption is greatest when the body has a good oxygen supply.

ANS: F

Absorption is greatest in areas of the body that have a good blood supply.

DIF: Cognitive level 1: Recall REF: p. 26

MULTIPLE CHOICE

6. The pharmacokinetic phases control the _____ of the drug's effect and the _____ of the drug action.
- intensity, duration
 - duration, effect
 - mechanism, safety
 - length, efficacy

ANS: A

These pharmacokinetic phases control the intensity of the drug's effect and the duration of the drug action.

DIF: Cognitive level 2: Interpretation REF: p. 22

7. The time it takes for a drug to reach the concentration necessary to produce a therapeutic effect is called the _____.
- duration of action
 - mechanism of action
 - onset of action
 - length of action

ANS: C

The time it takes for a drug to reach the concentration necessary to produce a therapeutic effect is called the onset of action.

DIF: Cognitive level 2: Interpretation REF: p. 22

8. Duration of action is the time between the _____ of action and _____ of drug action.
- mechanism, duration
 - onset, discontinuation
 - duration, concentration
 - onset, mechanism

ANS: B

Duration of action is the time between the onset of action and discontinuation of drug action.

DIF: Cognitive level 2: Interpretation REF: p. 22

9. How quickly or slowly a drug is absorbed is determined by the _____.
- characteristics of the drug
 - drug dosage form
 - route of administration
 - all of the above

ANS: D

How quickly or slowly a drug is absorbed is determined by the characteristics of the drug, drug dosage form, route of administration, and human anatomy and physiology.

DIF: Cognitive level 1: Recall REF: p. 22

10. _____ transport takes energy and requires special carrier proteins or pumps to “carry the drug” across the cell membrane.
- Passive
 - Active
 - Drug
 - Diffusive

ANS: B

Active transport takes energy and requires special carrier proteins or pumps to “carry the drug” across the cell membrane

DIF: Cognitive level 1: Recall REF: p. 25

11. The ability of a drug to diffuse across the cell membrane is dependent upon _____ of the drug and the _____ of the body fluid it is dissolved in.
- properties, actions
 - pH, actions
 - properties, pH
 - strength, health

ANS: C

The ability of a drug to diffuse across the cell membrane is dependent upon properties of the drug and the pH of the body fluid it is dissolved in.

DIF: Cognitive level 2: Interpretation REF: p. 26

12. A pH of _____ is neutral.
- 10
 - 7
 - 3
 - 5

ANS: B

A pH of 7 is neutral.

DIF: Cognitive level 1: Recall REF: p. 26

13. Absorption of orally administered drugs is greatest in the _____.
- small intestine
 - large intestine
 - liver
 - pancreas

ANS: A

Absorption of orally administered drugs is greatest in the small intestine.

DIF: Cognitive level 1: Recall

REF: p. 26

14. Distribution of the drug across the cell membrane of the blood vessel and transport to its site of action are influenced by the _____ nature of the drug.
- physical
 - mechanical
 - chemical
 - ionic

ANS: C

Distribution of the drug across the cell membrane of the blood vessel and transport to its site of action are influenced by the chemical nature of the drug.

DIF: Cognitive level 2: Interpretation

REF: p. 29

15. Albumin has the greatest affinity for _____ acids and _____ drugs.
- weak, lipophilic
 - strong, hydrophilic
 - weak, hydrophobic
 - strong, lipophobic

ANS: C

Albumin has the greatest affinity for weak acids and hydrophobic drugs.

DIF: Cognitive level 1: Recall

REF: p. 29

16. Anatomical structures that selectively limit drug access are the _____.
- blood-brain barrier
 - blood-placenta barrier
 - blood-testicular barrier
 - all of the above

ANS: D

Anatomical structures that selectively limit drug access are the blood-brain barrier, blood-placenta barrier, and blood-testicular barrier.

DIF: Cognitive level 1: Recall

REF: p. 26

17. Drugs listed in category _____ should be avoided because fetal abnormalities have been reported.
- X
 - B
 - C
 - A

ANS: A

Drugs listed in category X should be avoided because fetal abnormalities have been reported.

DIF: Cognitive level 1: Recall

REF: p. 30

18. _____ are drugs that are administered in an inactive form and must be metabolized to their active form.
- Metabolites
 - Prodrugs
 - Lipophilics
 - Hydrophobics

ANS: B

Prodrugs are drugs that are administered in an inactive form and must be metabolized to their active form.

DIF: Cognitive level 2: Interpretation

REF: p. 32

19. _____ and _____ require lower doses of drug to produce therapeutic effects.
- Infants, the elderly
 - Teenagers, the elderly
 - Children, adults
 - Infants, children

ANS: A

Infants and the elderly require lower doses of drug to produce therapeutic effects.

DIF: Cognitive level 2: Interpretation

REF: p. 33