# 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.
   a. intensity, duration
   b. duration, effect
   c. mechanism, safety
   d. 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 _____.
   a. duration of action
   b. mechanism of action
   c. onset of action
   d. 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.
   a. mechanism, duration
   b. onset, discontinuation
   c. duration, concentration
   d. 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 _____.
   a. characteristics of the drug
   b. drug dosage form
   c. route of administration
   d. 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.
    a. Passive
    b. Active
    c. Drug
    d. 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.
    a. properties, actions
    b. pH, actions
    c. properties, pH
    d. 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.
    a. 10
    b. 7
    c. 3
    d. 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 _____.
    a. small intestine
    b. large intestine
    c. liver
    d. 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.
a. physical
b. mechanical
c. chemical
d. 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.
a. weak, lipophilic
b. strong, hydrophilic
c. weak, hydrophobic
d. 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 _____.
a. blood-brain barrier
b. blood-placenta barrier
c. blood-testicular barrier
d. 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.
a. X
b. B
c. C
d. 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.
a. Metabolites
b. Prodrugs
c. Lipophilics
d. 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.
a. Infants, the elderly
b. Teenagers, the elderly
c. Children, adults
d. 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