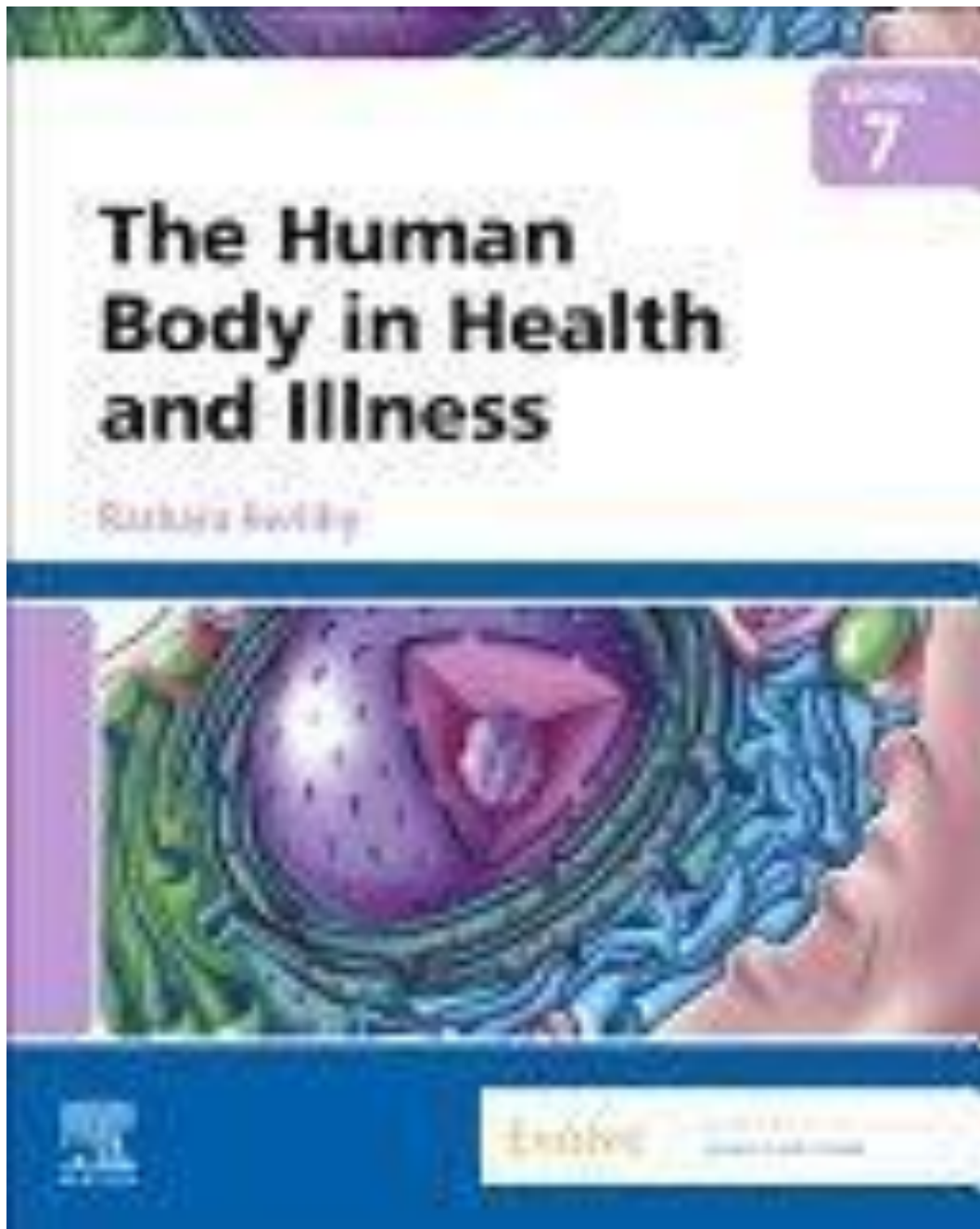


Complete Test Bank

The Human Body in Health and Illness 7th Edition
by Barbara Herlihy



Chapter 01: Introduction to the Human Body
Herlihy: The Human Body in Health and Illness, 7th Edition

MULTIPLE CHOICE

1. What is the branch of science that studies how the body functions?
- a. Anatomy
 - b. Histology
 - c. Pathology
 - d. Physiology

ANS: D

2. Which word comes from the Greek word meaning “to dissect”?
- a. Anatomy
 - b. Histology
 - c. Pathology
 - d. Physiology

ANS: A

3. Which of the following is a higher order of organization?
- a. Molecule
 - b. Cell
 - c. Organ
 - d. Tissue

ANS: C

4. The head is located _____to the chest.
- a. anterior
 - b. inferior
 - c. deep
 - d. superior

ANS: D

5. The foot is located _____to the leg.
- a. proximal
 - b. superior

- c. superficial
- d. distal

ANS: D

6. The leg is _____ to the thigh.
- a. distal
 - b. proximal
 - c. superior
 - d. deep

ANS: A

7. The thigh is _____ to the foot.
- a. distal
 - b. proximal
 - c. inferior
 - d. deep

ANS: B

8. The thoracic cavity is _____ to the abdominopelvic cavity.
- a. deep
 - b. distal
 - c. anterior
 - d. superior

ANS: D

9. The kneecap is located distal to the
- a. leg.
 - b. thigh.
 - c. foot.
 - d. toes.

ANS: B

10. Which organ is located in both the ventral and thoracic cavities?
- a. Stomach
 - b. Liver
 - c. Lung
 - d. Spinal cord

ANS: C

11. Which organ is located in the ventral cavity but not in the thoracic cavity?
- a. Lung
 - b. Heart
 - c. Liver

d. Brain

ANS: C

12. Which organ is located in the dorsal cavity?

- a. Liver
- b. Brain
- c. Heart
- d. Urinary bladder

ANS: B

13. Which of the following is descriptive of the location of the reproductive organs?

- a. Dorsal cavity and vertebral cavity
- b. Mediastinum and the thoracic cavity
- c. Ventral cavity and pelvic cavity
- d. Pleural cavity and mediastinum

ANS: C

14. Which cavity is divided into quadrants?

- a. Thoracic
- b. Abdominopelvic
- c. Dorsal
- d. Cranial

ANS: B

15. Which region is included within the right upper quadrant (RUQ)?

- a. Umbilical
- b. Hypogastric
- c. Right iliac
- d. Right hypochondriac

ANS: D

16. Which region is included within the left lower quadrant (LLQ)?

- a. Umbilical
- b. Left hypochondriac
- c. Epigastric
- d. Left iliac

ANS: D

17. Which of the following refers to the umbilicus?

- a. Groin
- b. Armpit
- c. Navel

d. Patellar

ANS: C

18. Which of the following refers to the lower back region?

- a. Groin
- b. Axillary
- c. Umbilical
- d. Lumbar

ANS: D

19. Which of the following refers to the groin region?

- a. Axillary
- b. Lumbar
- c. Cranial
- d. Inguinal

ANS: D

20. Which of the following refers to the area in front of the elbow?

- a. Axillary
- b. Brachial
- c. Antecubital
- d. Popliteal

ANS: C

21. Which area appears only on the anterior part of the body?

- a. Popliteal
- b. Umbilical
- c. Lumbar
- d. Occipital

ANS: B

22. Which area appears only on the posterior part of the body?

- a. Gluteal
- b. Patellar
- c. Umbilical
- d. Sternal

ANS: A

23. Which area is inferior to the diaphragm?

- a. Axillary
- b. Inguinal
- c. Occipital

d. Cervical

ANS: B

24. What is another name for the frontal plane?

- a. Sagittal plane
- b. Cross section
- c. Transverse plane
- d. Coronal plane

ANS: D

25. Which plane divides the body into right and left halves?

- a. Sagittal
- b. Coronal
- c. Transverse
- d. Frontal

ANS: A

26. In which cavity is the mediastinum located?

- a. Pelvic
- b. Dorsal
- c. Thoracic
- d. Abdominal

ANS: C

27. Which organ is located within the mediastinum?

- a. Lungs
- b. Stomach
- c. Liver
- d. Heart

ANS: D

28. In which cavity is the heart not located?

- a. Mediastinum
- b. Thoracic cavity
- c. Ventral cavity
- d. Dorsal cavity

ANS: D

29. Which organ is located in the ventral cavity and thoracic cavity but not in the mediastinum? a.

- Lung
- b. Liver
- c. Stomach
- d. Heart

ANS: A

30. Which group is incorrect?
- Planes: transverse, sagittal, frontal
 - Cavities: dorsal, ventral
 - Ventral cavities: thoracic, vertebral
 - Organs: heart, stomach, lungs, brain

ANS: C

31. Which group is incorrect?
- Cavities: dorsal, ventral
 - Ventral cavities: thoracic, abdominopelvic
 - Organ systems: circulatory, digestive, respiratory, brain
 - Organs: heart, stomach, lungs, liver

ANS: C

32. Which group is incorrect?
- Planes: sagittal, frontal, transverse
 - Ventral cavities: thoracic, abdominopelvic, cranial
 - Dorsal cavities: cranial, vertebral
 - Organ systems: circulatory, digestive, respiratory

ANS: B

33. The distal humerus (arm bone) is
- closer to the axillary area than to the elbow.
 - closer to the wrist than to the antecubital area.
 - distal to the wrist.
 - closer to the elbow than to the axillary area.

ANS: D

34. The proximal end of the thigh bone (femur) is
- distal to the knee.
 - closer to the knee than to the inguinal area.
 - distal to the pedal area.
 - closer to the inguinal area than to the umbilical area.

ANS: D

35. The lung is located in the thoracic cavity. What is the relationship of the lung to the head? a.
- Inferior
 - Deep
 - Anterior
 - Superior

ANS: A

36. Which of the following is superior to the umbilicus?

- a. Groin
- b. Popliteal area
- c. Sternal area
- d. Pelvic cavity

ANS: C

37. The heart is located in all the following except the

- a. mediastinum.
- b. ventral cavity.
- c. cranial cavity.
- d. thoracic cavity.

ANS: C

38. The lungs are located in all the following except the

- a. thoracic cavity.
- b. mediastinum.
- c. ventral cavity.
- d. pleural cavity.

ANS: B

39. Which of the following is true of the dorsal cavity?

- a. It contains the mediastinum.
- b. It contains the brain and spinal cord.
- c. It contains the thoracic cavity.
- d. It is smaller than the cranial cavity.

ANS: B

40. The sternal area is

- a. superior to the cervical region.
- b. the breastbone area.
- c. deep to the mediastinum.
- d. inferior to the thoracic cavity.

ANS: B

41. Which of the following is descriptive of the mediastinum?

- a. Thoracic cavity
- b. Dorsal cavity
- c. Abdominopelvic cavity
- d. RUQ

ANS: A

42. The sagittal plane
- a. is also called the *coronal plane*.
 - b. splits the body into a top and bottom.
 - c. splits the body into front and back.
 - d. splits the body into right and left.

ANS: D

43. Which of the following is least descriptive of the occipital area?
- a. Cranial
 - b. Midepigastic
 - c. Posterior head
 - d. Superior to the cervical area

ANS: B

44. A patient has been in a car wreck and is admitted to the emergency department with a chief complaint of severe cervical pain accompanied by loss of sensation in all extremities. Which of the following indicates the site of pain?
- a. Lower back
 - b. Both knees
 - c. Neck
 - d. RUQ

ANS: C

45. The LUQ is
- a. inferior to the sternal area.
 - b. inferior to the epigastric region.
 - c. inferior to the umbilical region.
 - d. located in the groin.

ANS: A

46. Which of the following describes pain that is located immediately below the shoulder blade?
- a. Cervical
 - b. Lumbar
 - c. Flank pain
 - d. Subscapular

ANS: D

47. Which of the following is superior to the lumbar region?
- a. Scapular
 - b. Inguinal
 - c. Popliteal
 - d. Gluteal

ANS: A

48. A 26-year-old man is scheduled for the surgical repair of a right inguinal hernia. Which of the following areas is involved surgically?
- RUQ
 - Umbilical region
 - Right iliac region
 - Right hypochondriac region

ANS: C

49. Refer to the previous question. On the first postoperative day, the patient is most likely to experience pain when he
- brushes his teeth.
 - eats breakfast.
 - walks.
 - speaks on the phone.

ANS: C

50. A physician has diagnosed a patient as having an enlarged liver. According to the patient's chart, his liver is measured as being two fingers below the costal margin of the rib cage. Where was the physician palpating (feeling) to get this measurement?
- Umbilical region
 - LUQ
 - Hypogastric region
 - RUQ

ANS: D

51. A patient was admitted to the emergency department and the physician recorded the patient's pain as being substernal, radiating to the left axillary region. Which of the following is a restatement of this description?
- The pain is sharp and is associated with nausea and vomiting.
 - The pain is indicative of an inguinal hernia.
 - The pain begins in the chest and radiates to the left flank and medial thigh.
 - The pain originates behind the breastbone and radiates to the left armpit area.

ANS: D

52. A patient with a history of gallbladder disease complains of midepigastriac pain that radiates to the right subscapular region. Which of the following best describes the pain?
- High abdominal pain that radiates to the groin
 - Crushing chest pain
 - Aching pain behind the breastbone, radiating to the left shoulder
 - High abdominal pain, radiating to below the right shoulder blade area

ANS: D

53. Which plane preserves an upper and lower half of the body?
- Transverse plane
 - Coronal plane

- c. Frontal plane
- d. Midsagittal

ANS: A

54. Which of the following is contained in the ventral cavity?

- a. Thoracic cavity
- b. Pleural cavities
- c. Abdominopelvic cavity
- d. All of the above

ANS: D

55. Which of the following is true?

- a. The wrist is proximal to the elbow.
- b. The distal humerus (arm bone) is closer to the axilla than to the elbow.
- c. The proximal thigh bone is closer to the hip than to the knee.
- d. The distal tibia (shin bone) is closer to the knee than to the ankle

ANS: C

56. Which of the following is true?

- a. The distal thigh bone (femur) is closer to the hip than to the knee.
- b. The distal humerus (arm bone) is closer to the axilla than to the elbow.
- c. The distal shin bone (tibia) is closer to the ankle than to the knee.
- d. The lateral thigh is closer to the midline of the body than is the medial thigh.

ANS: C

57. The medial thigh is located

- a. along the plantar surface of the foot.
- b. along the inner surface of the upper extremity.
- c. on the inner thigh region.
- d. distal to the popliteal region.

ANS: C

58. Which term refers to “beneath the ribs”?

- a. Iliac
- b. Inguinal
- c. Hypochondriac
- d. RLQ

ANS: C

59. The term *viscera* refers to

- a. the organs of the body.
- b. the cavities contained within the ventral cavity.
- c. the cavities contained within the thoracic cavity.

d. the divisions of the abdominopelvic cavity.

ANS: A

60. The ventral cavity is the anterior cavity; the _____ is the posterior cavity.

- a. thoracic cavity
- b. dorsal cavity
- c. pleural cavity
- d. mediastinum

ANS: B

61. The caudal part of the spinal cord is

- a. superior to the thoracic part of the spinal cord.
- b. located near the tailbone.
- c. interior to the cervical spinal cord.
- d. located near the brain.

ANS: B

62. Which of the following includes the right iliac region?

- a. RUQ
- b. Epigastric region
- c. Umbilical region
- d. RLQ

ANS: D

63. The medial canthus (corner) of the eye is

- a. located near the nose.
- b. located near the ear.
- c. superior to the eyebrow.
- d. inferior to the eyelid.

ANS: A

64. The plantar region is

- a. located in the upper extremities.
- b. the bottom of the foot.
- c. proximal to the knee.
- d. the groin.

ANS: B

65. Which two words are directional “opposites”?

- a. Proximal, femoral
- b. Caudal, cephalic
- c. Distal, peripheral

d. Anterior, superficial

ANS: B

66. *Pedal, patellar, popliteal, and plantar* are terms that refer to

- a. lower extremities areas.
- b. arm.
- c. toes.
- d. structures that are proximal to the kneecap.

ANS: A

67. Which of the following terms refers to the area along the lateral trunk between the ribs and the hip bones?

- a. Inguinal
- b. Visceral
- c. Flank
- d. Gluteal

ANS: C

68. *Buccal, oral, and orbital* are terms that refer to the structures in the a. neck.

- b. head.
- c. flank.
- d. inguinal area.

ANS: B

69. With which word is lower back pain associated?

- a. Flank
- b. Inguinal
- c. Lumbar
- d. Popliteal

ANS: C

Chapter 02: Basic Chemistry

Herlihy: The Human Body in Health and Illness, 7th Edition

MULTIPLE CHOICE

1. Which of the following are located in the orbits surrounding the nucleus? a.

- Isotopes
- b. Protons
- c. Electrons
- d. Neutrons

ANS: C

2. Which of the following is a measurement of hydrogen ion concentration $[H^+]$?
- Atomic number
 - Atomic mass
 - Isotope
 - pH

ANS: D

3. The sharing of electrons is referred to as
- covalent bonding.
 - ionic bonding.
 - radioactive decay.
 - isotope formation.

ANS: A

4. Which element must be present for a substance to be classified as organic? a.
- Iodine
 - Iron
 - Carbon
 - Calcium

ANS: C

5. A cation is a(n)
- positively charged ion.
 - electrolyte.
 - isotope.
 - ion that has an atomic mass of 2.

ANS: A

6. Which of the following is an anion?
- Sodium ion
 - Potassium ion
 - Chloride ion
 - Calcium ion

ANS: C

7. What kind of ion would have 8 protons in its nucleus and 9 electrons in its orbits? a.
- Cation
 - Electrolyte
 - Acid
 - Anion

ANS: D

8. Which of the following is true of an anion?

- a. An anion always ionizes to form electrolytes.
- b. An anion always has an atomic mass of 15.
- c. An anion carries a negative charge.
- d. A hydrogen ion is an anion.

ANS: C

9. NaCl, table salt, is called a(n)

- a. anion.
- b. electrolyte.
- c. cation.
- d. ion.

ANS: B

10. Which process refers to the dissociation of NaCl into Na⁺ and Cl⁻?

- a. Radioactivity
- b. Ionization
- c. Covalent bonding
- d. Hydrogen bonding

ANS: B

11. Which of the following is descriptive of the chemical reaction in the previous question?

- a. Cation + anion \rightarrow electrolyte
- b. Electrolyte \rightarrow cation + anion
- c. Electrolyte + anion \rightarrow cation
- d. Neutralization of an acid by a base

ANS: B

12. Which of the following is an anion?

- a. NaCl
- b. KCl
- c. H₂SO₄
- d. HCO₃⁻

ANS: D

13. Which of the following represents bicarbonate, an anion that is important in acid–base regulation?

- a. HCl
- b. Ca(OH)₂
- c. HCO₃⁻
- d. KCl

ANS: C

14. Which compound is the universal solvent?

- a. Carbon dioxide
- b. Oxygen
- c. ATP
- d. Water

ANS: D

15. $[H^+]$ refers to
- a. an isotope of hydrogen.
 - b. heavy hydrogen.
 - c. hydrogen bonding.
 - d. hydrogen ion concentration.

ANS: D

16. Which compound is a waste product of cellular metabolism?
- a. Oxygen
 - b. Carbon dioxide
 - c. Catalyst
 - d. ATP

ANS: B

17. Which of the following increases the speed of a chemical reaction but is itself not used up in the chemical reaction?
- a. An isotope
 - b. A cation
 - c. A catalyst
 - d. ATP

ANS: C

18. What is the energy-transferring molecule?
- a. H^+
 - b. ATP
 - c. Ca^{2+}
 - d. NaCl

ANS: B

19. Which of the following acts as a catalyst?
- a. An acid
 - b. An enzyme
 - c. A buffer
 - d. ATP

ANS: B

20. Fe^{2+} is formed when iron

- a. gains 2 protons.
- b. gains 2 electrons.
- c. loses 2 protons.
- d. loses 2 electrons.

ANS: D

21. Which of the following is true of Na^+ ?

- a. It is an anion.
- b. It is an electrolyte.
- c. It bonds ionically with Ca^{2+} .
- d. It is a cation.

ANS: D

22. Which of the following carries no net electrical charge?

- a. An anion
- b. A cation
- c. A polar molecule
- d. An ion

ANS: C

23. Which of the following illustrates antacid activity?

- a. $\text{NaCl} \rightleftharpoons \text{Na}^+ + \text{Cl}^-$
- b. $\text{HCl} \rightleftharpoons \text{H}^+ + \text{Cl}^-$
- c. $\text{Mg}(\text{OH})_2 + \text{HCl} \rightleftharpoons \text{MgCl}_2 + \text{H}_2\text{O}$
- d. $\text{KCl} \rightleftharpoons \text{K}^+ + \text{Cl}^-$

ANS: C

24. Zinc, selenium, cobalt, and iodine are all

- a. trace elements.
- b. compounds.
- c. radioactive.
- d. isotopes of hydrogen.

ANS: A

25. Iron can be a(n)

- a. anion.
- b. electrolyte.
- c. acid.
- d. cation.

ANS: D

26. Which of the following is described by this statement? One atom of oxygen bonds covalently with two atoms of hydrogen.
- Carbon dioxide
 - A tincture
 - Water
 - Neutralization of an acid with a base

ANS: C

27. A solution that has a pH of 6.8
- has a neutral pH.
 - is alkaline.
 - is basic.
 - is acidic.

ANS: D

28. What happens when HCl is added to a solution with a pH of 7.45?
- The pH will be higher than 7.45.
 - The solution will become more alkaline.
 - The $[H^+]$ of the solution will increase.
 - The pH will be higher than 8.0.

ANS: C

29. Which pH is considered neutral?
- 7.35
 - 7.45
 - 7.00
 - 14.0

ANS: C

30. Blood has a pH range of 7.35 to 7.45 and therefore
- is acidic.
 - is three to four times more viscous (thicker) than water.
 - has a pH that is similar to urine and stomach contents.
 - is alkaline.

ANS: D

31. In which of the following is the number of hydrogen ions greater?
- An alkaline solution
 - A basic solution
 - Blood
 - A solution with a pH of 6.2

ANS: D

32. An atom has 2 protons, 2 neutrons, and 2 electrons; it has an atomic

- a. number of 6.
- b. mass of 2.
- c. mass of 4.
- d. number of 4.

ANS: C

33. An atom has 1 proton, 0 neutrons, and 1 electron; its isotope has
- a. 2 electrons and 0 neutrons.
 - b. 2 protons and 2 neutrons.
 - c. 1 proton and 1 neutron.
 - d. 2 protons and 0 neutrons.

ANS: C

34. An atom has 1 proton, 0 neutrons, and 1 electron. What will convert this atom to a cation? a.
- a. Add 1 neutron.
 - b. Add 1 proton.
 - c. Lose 1 electron.
 - d. Add 1 proton, 2 neutrons, and 1 electron.

ANS: C

35. The heart pushes blood into the blood vessels as chemical energy is converted to which form of energy?
- a. Thermal
 - b. Radiant
 - c. Mechanical
 - d. Nuclear

ANS: C

36. Which of the following best describes a solution in which water is the solvent?
- a. Colloidal suspension
 - b. Aqueous solution
 - c. Tincture
 - d. Isotope

ANS: B

37. Which of the following best describes a solution in which alcohol is the solvent? a.
- a. Tincture
 - b. Alkaline
 - c. Acid
 - d. Aqueous

ANS: A

38. A combination of sugar granules and iron filings is best described as a(n) a.
mixture.
b. colloidal suspension.
c. tincture.
d. isotope.

ANS: A

39. Which of the following can neutralize H^+ ?

- a. Ca^{2+}
b. Na^+ c. OH^- d.

H_2O ANS: C

40. Which of the following is incorrect?

- a. Mixtures: suspension, colloidal suspension, solution
b. Ions: Na^+ , Cl^- , Ca^{2+} , K^+
c. Electrolytes: $NaCl$, KCl , $CaCl_2$, HCO_3^-
d. Cations: Na^+ , Ca^{2+} , K^+ , H^+

ANS: C

41. The ionization of salt ($NaCl$)

- a. produces an acid and a base.
b. produces an electrolyte.
c. lowers pH.
d. produces a cation and an anion.

ANS: D

42. Which of the following is true of iodine and radioactive iodine?

- a. Both have the same atomic numbers.
b. Both have the same atomic masses.
c. Neither has electrons in its orbit.
d. Both create radiation hazards.

ANS: A

43. Which of the following is true of Na^+ ?

- a. Called the *sodium ion*
b. Has fewer protons than electrons
c. Called an *anion*
d. Lowers pH

ANS: A

44. Which of the following is true of Cl^- ?

- a. Is an electrolyte

- b. Is an anion
- c. Increases pH
- d. Decreases pH

ANS: B

45. Which of the following is most descriptive of HCl?

- a. Is called *bicarbonate*
- b. Is an acid
- c. Raises pH
- d. Dissociates into Na^+ and Cl^-

ANS: B

46. Water is a(n)

- a. molecule.
- b. aqueous solvent.
- c. compound.
- d. All of the above.

ANS: D

47. An atom that has 3 protons, 4 neutrons, and 3 electrons

- a. has an atomic mass of 7.
- b. is a cation.
- c. has an atomic number of 4.
- d. has an atomic number of 10.

ANS: A

48. An atom has 3 protons, 4 neutrons, and 3 electrons; another atom has 3 protons, 3 neutrons, and 3 electrons. Which of the following is most descriptive of this pair of atoms? a.

- Mixture
- b. Cation
- c. Electrolyte
- d. Isotope

ANS: D

49. An atom has 4 protons, 4 neutrons, and 4 electrons. It

- a. has an atomic number of 8.
- b. is a cation.
- c. has an atomic mass of 12.
- d. has an atomic mass of 8.

ANS: D

50. ATP

- a. is a buffer, removing H^+ from solution.
- b. is an energy transfer molecule.

- c. is a radioactive isotope of phosphate.
- d. ionizes to H^+ , thereby lowering pH.

ANS: B

51. Which of the following is most descriptive of the nucleus of the atom?

- a. Contents determine the atomic number
- b. Contents determine the atomic mass
- c. "Home" of the protons
- d. All of the above

ANS: D

52. Which of the following is most descriptive of ionic and covalent?

- a. Types of bonding in which the electrons are shared
- b. Types of bonding in which the electrons are swapped
- c. Types of bonding
- d. Types of bonding found only in reactions in which H^+ is produced

ANS: C

53. An electrolyte

- a. dissociates into ions.
- b. yields only cations.
- c. always yields H^+ and lowers pH.
- d. always removes H^+ and increases pH.

ANS: A

54. A catalyst

- a. is an H^+ -yielding molecule.
- b. is an acid.
- c. is an alkali.
- d. increases the speed of a chemical reaction.

ANS: D

55. Which of the following is most descriptive of the function of an enzyme?

- a. Neutralization
- b. Ionization
- c. Catalyst
- d. pH

ANS: C

56. A patient with a blood pH of 7.28

- a. has an excess of H^+ .
- b. has a blood pH that is within normal limits.
- c. is alkalotic.
- d. has a blood pH that indicates a deficiency of acid.

ANS: A

57. A solution with a pH of 8
- is more acidic than blood.
 - is more acidic than stomach contents.
 - has more H^+ than urine.
 - is more alkaline than blood.

ANS: D

58. The pH of urine
- is always more alkaline than blood.
 - is always acidic.
 - can be acidic or alkaline.
 - is more acidic than stomach contents.

ANS: C

59. The addition of H^+ to blood
- increases blood pH.
 - makes the blood more acidic.
 - makes the blood more alkaline.
 - changes the blood pH from 7.4 to 7.8.

ANS: B

60. Blood is called a *colloidal suspension* because
- it has a pH of 7.4.
 - it is alkaline.
 - it consists of the suspended plasma proteins.
 - it consists of the sodium and chloride ions.

ANS: C

61. Which of the following is correct about the following reaction: $NaCl \rightleftharpoons Na^+ + Cl^-$? a.
- Neutralization
 - Ionization
 - Anabolic
 - Irreversible

ANS: B

62. An atom of oxygen has an atomic number of 8. Therefore
- it can share electrons with another identical atom.
 - it can share electrons with another oxygen atom.
 - it can form O_2 .
 - All of the above are true.

ANS: D

63. An atom of oxygen shares its outer shell electrons with two hydrogen atoms thereby a. forming an acid.
b. ionizing.
c. forming a molecule of water.
d. forming an anion and cation.

ANS: C

64. A molecule of water has a (+) charge at one and a (-) charge at the other end of the molecule. What is the best description? a. Radioactive
b. Tincture
c. Polar molecule
d. Ionization

ANS: C

65. Intestinal secretions are alkaline. What can decrease its pH?
a. The addition of H^+ in the form of HCl
b. Drinking baking soda ($NaHCO_3$)
c. Neutralization of gastric (stomach) HCl
d. Drinking lots of water

ANS: A

66. What do the following have in common: Pb, plumbism, and plumber? All terms refer to
a. persons who work with pipes.
b. toxic effects of a trace element.
c. toxic cations.
d. lead.

ANS: D

67. Which group is correct?
a. Subatomic particles located within the nucleus: protons, neutrons, electrons
b. Common cations: Na, K, HCO_3^- , NH_4^+
c. Common molecules: O_2 , N_2 , H_2O
d. Bases: NaOH, $NaHCO_3^-$, HCl

ANS: C

68. Which of the following is most descriptive of a precipitate that forms during a chemical reaction? a. Acid
b. Base
c. Solid
d. Solution

ANS: C

69. In the reaction $\text{HCl} \rightleftharpoons \text{H}^+ + \text{Cl}^-$
- HCl ionizes, thereby yielding the cation (H^+) and anion (Cl^-).
 - hydrochloric acid dissociates into an anion and cation.
 - HCl dissociates into a hydrogen ion and chloride ion.
 - All of the above are true.

ANS: D

70. Which group is correct?
- Blood pH 7.50, alkaline, turns litmus paper pink
 - Blood pH 7.2, acidosis, turns litmus paper pink
 - Blood pH 7.35, normal blood pH, turns litmus paper blue
 - More than one of the above are true.

ANS: C

Chapter 03: Cells

Herlihy: The Human Body in Health and Illness, 7th Edition

MULTIPLE CHOICE

1. Which of the following is considered the control center of the cell?
- Mitochondrion
 - Nucleus
 - Lysosome
 - Centriole

ANS: B

2. The mitochondrion is called the *power plant* of the cell because _____ within the mitochondrion.
- most of the ATP is produced
 - all protein synthesis occurs
 - all DNA is located
 - all ribosomes are located

ANS: A

3. Which of the following is (are) found on the rough endoplasmic reticulum?
- Ribosomes
 - Cilia
 - Lysosomes
 - DNA

ANS: A

4. The rough ER is the site of