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SKU: 9781285174150-TEST-BANK

Name:_____ Class:_____ Date:_____

Chapter 02

True / False

1. An element is a substance whose atoms all contain the same number of neutrons.
   a. True
   b. False

ANSWER: False
POINTS: 1
REFERENCES: Elements, Isotopes, Compounds
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 2/24/2015 12:55 AM
DATE MODIFIED: 2/24/2015 12:56 AM

2. Isotopes are atoms of the same element that have different numbers of neutrons but the same number of protons.
   a. True
   b. False

ANSWER: True
POINTS: 1
REFERENCES: Elements, Isotopes, Compounds
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 2/24/2015 12:56 AM
DATE MODIFIED: 2/24/2015 12:57 AM

3. Atoms that gain electrons become negatively charged.
   a. True
   b. False

ANSWER: True
POINTS: 1
REFERENCES: Bonds and Energy
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 2/24/2015 12:57 AM
DATE MODIFIED: 2/24/2015 12:58 AM

4. The two purine nitrogen bases are adenine and guanine.
   a. True
   b. False

ANSWER: True
POINTS: 1
REFERENCES: Bonds and Energy
QUESTION TYPE: True / False
HAS VARIABLES: False

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Chapter 02

DATE CREATED: 2/24/2015 12:58 AM
DATE MODIFIED: 2/24/2015 1:03 AM

5. Temperature has no effect on diffusion rate.
   a. True
   b. False

ANSWER: False
POINTS: 1
REFERENCES: Movement of Materials into and out of Cells
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:04 AM
DATE MODIFIED: 2/24/2015 1:05 AM

Multiple Choice

6. What are the smallest particles of an element?
   a. atoms
   b. molecules
   c. compounds
   d. cells

ANSWER: a
POINTS: 1
REFERENCES: Atomic Structure
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:05 AM
DATE MODIFIED: 2/24/2015 1:07 AM

7. The compact central nucleus of an atom contains ____ and ____.
   a. electrons; protons
   b. electrons; neutrons
   c. protons; neutrons
   d. electrons; isotopes

ANSWER: c
POINTS: 1
REFERENCES: Atomic Structure
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:07 AM
DATE MODIFIED: 2/24/2015 1:09 AM

8. What element is found in all living matter?

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a. nitrogen
b. carbon
c. lithium
d. oxygen

ANSWER: b
POINTS: 1
REFERENCES: Elements, Isotopes, Compounds
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:09 AM
DATE MODIFIED: 2/24/2015 1:11 AM

9. In an atom, ____ orbit the nucleus.
a. protons
b. electrons
c. neutrons
d. isotopes

ANSWER: b
POINTS: 1
REFERENCES: Atomic Structure
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:11 AM
DATE MODIFIED: 2/24/2015 1:13 AM

10. Atoms that gain ____ become negatively charged.
a. protons
b. neutrons
c. electrons
d. isotopes

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:16 AM
DATE MODIFIED: 2/24/2015 1:17 AM

11. What is formed when two or more different elements combine by sharing electrons?
a. proton
b. chemical
c. ion
d. compound

ANSWER: d

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POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:18 AM
DATE MODIFIED: 2/24/2015 1:20 AM

12. What is formed when an atom loses or gains an electron?
    a. proton
    b. chemical
    c. ion
    d. compound

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:20 AM
DATE MODIFIED: 2/24/2015 1:22 AM

13. What kind of bond is formed when one atom gains an electron and another atom loses an electron?
    a. ionic
    b. covalent
    c. hydrogen
    d. molecular

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:22 AM
DATE MODIFIED: 2/24/2015 1:25 AM

14. What kind of bond is formed when two atoms share electrons?
    a. ionic
    b. covalent
    c. hydrogen
    d. isotopic

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:25 AM
DATE MODIFIED: 2/24/2015 1:27 AM

15. Molecules containing which type of bond do not dissociate in water?

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a. ionic
b. covalent
c. hydrogen
d. isotopic

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:28 AM
DATE MODIFIED: 2/24/2015 1:31 AM

16. Elements or molecules contributing electrons during a reaction are called ____.

a. covalent
b. electron donors
c. electron acceptors
d. electron carriers

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:31 AM
DATE MODIFIED: 2/24/2015 1:34 AM

17. Which process occurs when water is used to break down larger molecules?

a. photosynthesis
b. combination reaction
c. synthesis
d. hydrolysis

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:34 AM
DATE MODIFIED: 2/24/2015 1:37 AM

18. What is the universal solvent?

a. carbon
b. urea
c. hydrogen
d. water

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice

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HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:37 AM
DATE MODIFIED: 2/24/2015 1:40 AM

19. The liver converts toxic ammonia to a harmless substance called ____.
    a. urea
    b. carbohydrate
    c. sodium
    d. mineral salt

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:41 AM
DATE MODIFIED: 2/24/2015 1:43 AM

20. The smallest carbohydrates are simple ____.
    a. proteins
    b. lipids
    c. amino acids
    d. sugars

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:44 AM
DATE MODIFIED: 2/24/2015 1:47 AM

21. Starch, glycogen, and cellulose are all examples of ____.
    a. carbohydrates
    b. lipids
    c. proteins
    d. nucleotides

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 1:47 AM
DATE MODIFIED: 2/24/2015 1:51 AM

22. The basic building blocks of proteins are ____.
    a. triglycerides
    b. monosaccharides

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c. amino acids
d. nucleotides

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:20 AM
DATE MODIFIED: 2/24/2015 2:27 AM

23. Protein catalysts in the body that increase the rate of chemical reactions are called ____.
a. amino acids
b. enzymes
c. atoms
d. nucleotides

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:27 AM
DATE MODIFIED: 2/24/2015 2:31 AM

24. Which nucleotide is found in RNA but not in DNA?
a. guanine
b. adenine
c. thymine
d. uracil

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:31 AM
DATE MODIFIED: 2/24/2015 2:35 AM

25. A(n) ____ molecule is a double-stranded helical chain made up of nucleotides.
a. ATP
b. RNA
c. DNA
d. lipid

ANSWER: c
POINTS: 1
REFERENCES: Common Substances in Living Systems
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False

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DATE CREATED: 2/24/2015 2:39 AM
DATE MODIFIED: 2/24/2015 2:43 AM

26. The covalent bonds that are formed between different amino acids to form a protein are known as ____.
    a. peptide bonds
    b. ionic bonds
    c. hydrogen bonds
    d. electrolyte bonds

ANSWER: a
POINTS: 1
REFERENCES: Common Substances in Living Systems
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:43 AM
DATE MODIFIED: 2/24/2015 2:45 AM

27. When the solute concentration outside a red blood cell equals the solute concentration inside the cell, the solution is called ____.
    a. hypotonic
    b. osmotic
    c. hypertonic
    d. isotonic

ANSWER: d
POINTS: 1
REFERENCES: Movement of Materials into and out of Cells
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:45 AM
DATE MODIFIED: 2/24/2015 2:46 AM

28. A red blood cell that is placed in a hypotonic solution will ____.
    a. shrink
    b. not change
    c. swell
    d. crenulate

ANSWER: c
POINTS: 1
REFERENCES: Movement of Materials into and out of Cells
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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DATE MODIFIED: 2/24/2015 2:48 AM

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29. he type of transport that requires energy input is called ____.
    a. passive transport
    b. diffusion
    c. osmosis
    d. active transport

ANSWER: d
POINTS: 1
REFERENCES: Movement of Materials into and out of Cells
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:49 AM
DATE MODIFIED: 2/24/2015 2:50 AM

30. A solution with a pH of 3 is called a(n) ____.
    a. acid
    b. base
    c. ion
    d. solute

ANSWER: a
POINTS: 1
REFERENCES: Acid Rain
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:50 AM
DATE MODIFIED: 2/24/2015 2:52 AM

31. Distilled water has a pH of 7 and is therefore ____.
    a. acidic
    b. basic
    c. neutral
    d. ionic

ANSWER: c
POINTS: 1
REFERENCES: Acid Rain
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:52 AM
DATE MODIFIED: 2/24/2015 2:54 AM

32. What kind of bonds do the mineral salts form?
    a. hydrogen
    b. ionic
    c. covalent

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d. isotopic

ANSWER: b
POINTS: 1
REFERENCES: Bonds and Energy
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:54 AM
DATE MODIFIED: 2/24/2015 2:56 AM

33. The ____ structure of proteins is determined by the hydrogen bonds between amino acids that cause the protein to coil into helices or pleated sheets.

a. secondary
b. tertiary
c. primary
d. quaternary

ANSWER: a
POINTS: 1
REFERENCES: Common Substances in Living Systems
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:57 AM
DATE MODIFIED: 2/24/2015 2:59 AM

34. Which type of chemical bond holds water molecules together by forming a bridge between the negative oxygen atom of one water molecule and the positive hydrogen atoms of another water molecule?

a. isotopic
b. hydrogen
c. ionic
d. covalent

ANSWER: b
POINTS: 1
REFERENCES: Bonds and Energy
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 2:59 AM
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35. DNA and RNA are examples of ____.

a. proteins
b. lipids
c. nucleic acids
d. carbohydrates

ANSWER: c

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POINTS: 1
REFERENCES: Common Substances in Living Systems
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 2/24/2015 3:01 AM
DATE MODIFIED: 2/24/2015 3:04 AM

Completion

36. Fats, phospholipids, and steroids are all examples of _____.
ANSWER: lipids
POINTS: 1
REFERENCES: Common Substances in Living Systems
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 2/24/2015 3:04 AM
DATE MODIFIED: 2/24/2015 3:05 AM

37. The science that deals with the elements, their compounds, and the chemical reactions that occur between elements and compounds is known as _____.
ANSWER: chemistry
POINTS: 1
REFERENCES: Introduction
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 2/24/2015 3:06 AM
DATE MODIFIED: 2/26/2015 6:42 AM

38. The most abundant substance in living cells is _____.
ANSWER: water
POINTS: 1
REFERENCES: Common Substances in Living Systems
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 2/24/2015 3:07 AM
DATE MODIFIED: 2/24/2015 3:08 AM

39. With regard to pH levels, _____ maintain homeostasis within cells.
ANSWER: buffers
POINTS: 1
REFERENCES: Acid Rain
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 2/24/2015 3:08 AM

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DATE MODIFIED: 2/24/2015 3:16 AM

40. Tomato juice has a pH of 4; therefore, it is considered a(n) _____.
ANSWER: acid
POINTS: 1
REFERENCES: Acid Rain
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 2/24/2015 3:16 AM
DATE MODIFIED: 2/24/2015 3:18 AM

Matching

Match the description with the corresponding term.

a. acid b. base
c. ATP d. diffusion
e. osmosis f. active transport
g. DNA h. electron
i. proton j. ammonia

REFERENCES: Common Substances in Living Systems
Common Substances in Living Systems
Movement of Materials into and out of Cells
Atomic Structure
Atomic Structure
Introduction
Acid Rain
Movement of Materials into and out of Cells
Acid Rain
Movement of Materials into and out of Cells
QUESTION TYPE: Matching
HAS VARIABLES: False
DATE CREATED: 2/24/2015 3:18 AM
DATE MODIFIED: 2/24/2015 3:26 AM

41. genetic material
ANSWER: g
POINTS: 1

42. nitrogen-containing waste
ANSWER: j
POINTS: 1

43. movement of water
ANSWER: e
POINTS: 1

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44. negatively charged part of atom
ANSWER: h
POINTS: 1

45. positively charged part of atom
ANSWER: i
POINTS: 1

46. chemical fuel (energy currency of the cell)
ANSWER: c
POINTS: 1

47. hydrogen ion producer
ANSWER: a
POINTS: 1

48. movement of solute to area of lower concentration
ANSWER: d
POINTS: 1

49. combines with hydrogen ions
ANSWER: b
POINTS: 1

50. requires energy to move substances to area of higher concentration
ANSWER: f
POINTS: 1

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