

TEST BANK

General Organic and Biological Chemistry Structures of Life

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6th Edition

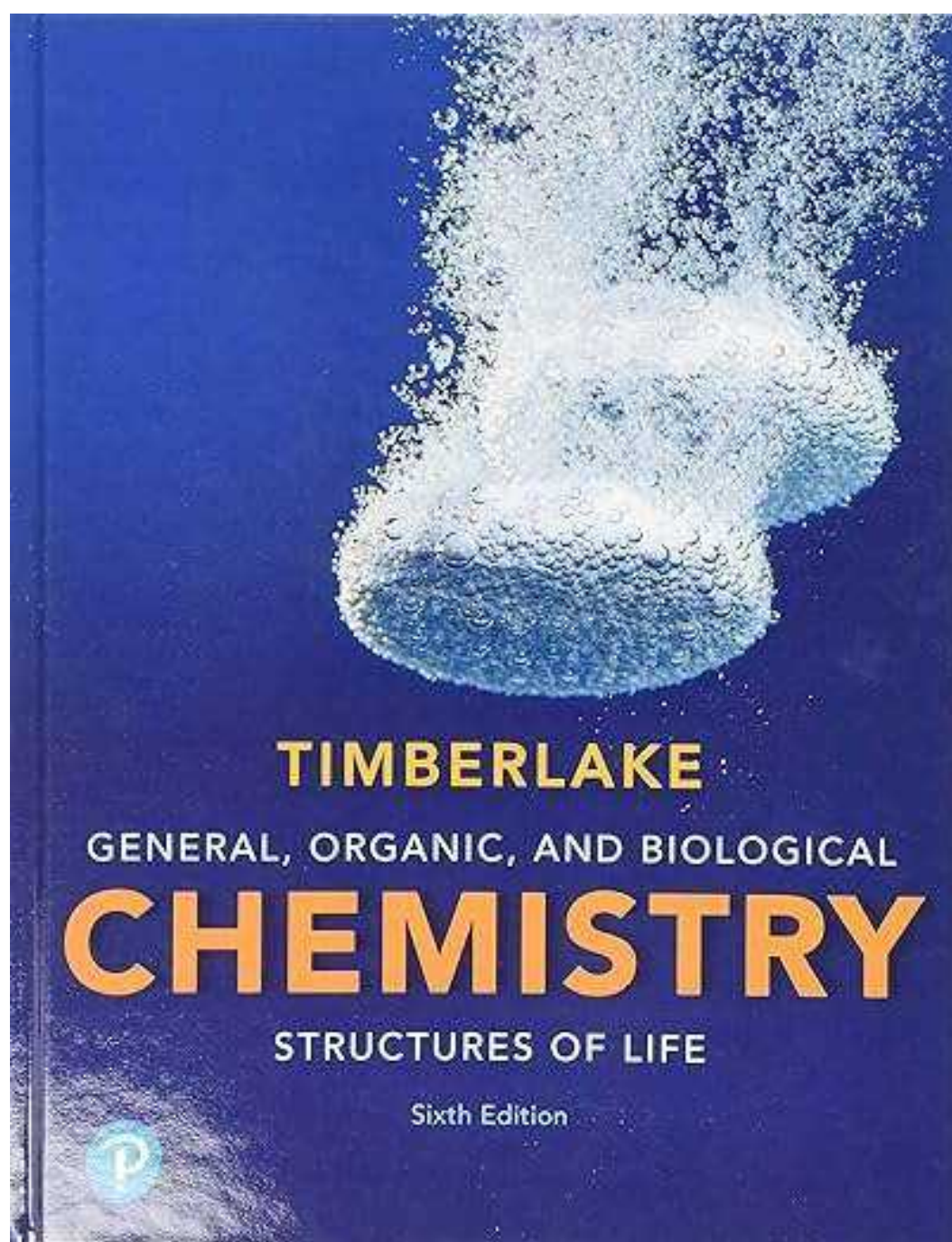


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General, Organic and Biological Chemistry: Structures of Life, 6e, (Timberlake)

Chapter 1 Chemistry in Our Lives

1.1 Multiple-Choice Questions

1) Water, H₂O, is an example of a(n)

- A) chemical.
- B) type of energy.
- C) wave.
- D) electric charge.
- E) element.

Answer: A

Objective: 1.1

Global Outcomes: GO2

2) In this list, which substance can be classified as a chemical?

- A) salt
- B) sleep
- C) cold
- D) heat
- E) temperature

Answer: A

Objective: 1.1

Global Outcomes: GO2

3) One example of a chemical used in toothpaste is

- A) chlorine.
- B) sulfur.
- C) carbon dioxide.
- D) calcium carbonate.
- E) sugar.

Answer: D

Objective: 1.1

Global Outcomes: GO2

4) Which of the following is NOT a chemical?

- A) salt
- B) water
- C) light
- D) carbon dioxide
- E) sugar

Answer: C

Objective: 1.1

Global Outcomes: GO2

5) Sodium fluorophosphate is a chemical used in toothpaste to

- A) make the paste white.
- B) disinfect the toothbrush.
- C) keep the paste from spoiling.
- D) remove plaque.
- E) strengthen tooth enamel.

Answer: E

Objective: 1.1

Global Outcomes: GO2

6) Titanium dioxide is a chemical used in toothpaste to

- A) make the toothpaste white.
- B) disinfect the toothbrush.
- C) keep the paste from spoiling.
- D) remove plaque.
- E) strengthen tooth enamel.

Answer: A

Objective: 1.1

Global Outcomes: GO2

7) When a part of the body is injured, substances called _____ are released.

- A) aspirins
- B) pain relievers
- C) nitrogen oxides
- D) chlorofluorocarbons
- E) prostaglandins

Answer: E

Objective: 1.1

Global Outcomes: GO2

8) Which of the following is a chemical?

- A) sugar
- B) heat
- C) light
- D) noise
- E) sound

Answer: A

Objective: 1.1

Global Outcomes: GO2

9) You notice that there is more traffic between 8:00 and 9:00 AM. This would be a(n)

- A) observation.
- B) hypothesis.
- C) experiment.
- D) conclusion/theory.

Answer: A

Objective: 1.2

Global Outcomes: GO1

10) There is more traffic between 8:00 and 9:00 AM because most people start work at 9:00 AM. This would be a(n)

- A) observation.
- B) hypothesis.
- C) experiment.
- D) conclusion/theory.

Answer: B

Objective: 1.2

Global Outcomes: GO1

11) In order to enhance your learning in chemistry, you should NOT

- A) study a little every day.
- B) form a study group.
- C) go to professor's office hours.
- D) be an active learner.
- E) wait until the night before the exam to study.

Answer: E

Objective: 1.3

Global Outcomes: GO2

12) Which of the following would NOT be part of a study plan to learn chemistry?

- A) study a little every day
- B) skip your professor's office hours
- C) form a study group
- D) read the chapter before class
- E) work the sample problems

Answer: B

Objective: 1.3

Global Outcomes: GO2

13) In the number 12.3**4**5, the 4 is in the _____ place.

- A) tens
- B) ones
- C) tenths
- D) hundredths
- E) thousandths

Answer: D

Objective: 1.4

Global Outcomes: GO4

14) In the number **1**2.345, the 1 is in the _____ place.

- A) tens
- B) ones
- C) tenths
- D) hundredths
- E) thousandths

Answer: A

Objective: 1.4

Global Outcomes: GO4

15) In the number 12.**3**45, the 3 is in the _____ place.

- A) tens
- B) ones
- C) tenths
- D) hundredths
- E) thousandths

Answer: C

Objective: 1.4

Global Outcomes: GO4

16) The product of $(-4) \times (-5)$ is

- A) -20
- B) .20
- C) -1
- D) .1
- E) 0

Answer: B

Objective: 1.4

Global Outcomes: GO4

17) For the equation $4x + 2 = 10$, x equals

- A) 8
- B) 12
- C) 3
- D) 2
- E) -2

Answer: D

Objective: 1.4

Global Outcomes: GO4

18) For the equation $6y - 20 = -2$, y equals

- A) 2
- B) -3
- C) 3
- D) 4
- E) -2

Answer: C

Objective: 1.4

Global Outcomes: GO4

19) For the equation : $-10 - (-4) =$

- A) 6
- B) -6
- C) 14
- D) -14
- E) 4

Answer: B

Objective: 1.4

Global Outcomes: GO4

20) 12 is what percentage of 36?

- A) 3%
- B) 30%
- C) 33%
- D) 330%
- E) 12%

Answer: C

Objective: 1.4

Global Outcomes: GO4

21) 16 is what percentage of 80?

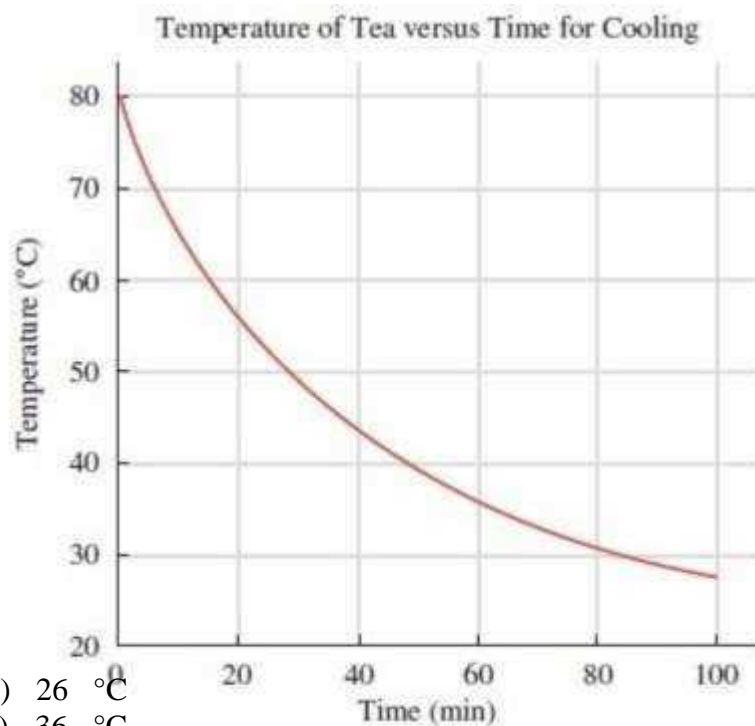
- A) 200%
- B) 20%
- C) 2%
- D) 5%
- E) 50%

Answer: B

Objective: 1.4

Global Outcomes: GO4

22) On the graph, what is the temperature after 40 minutes?



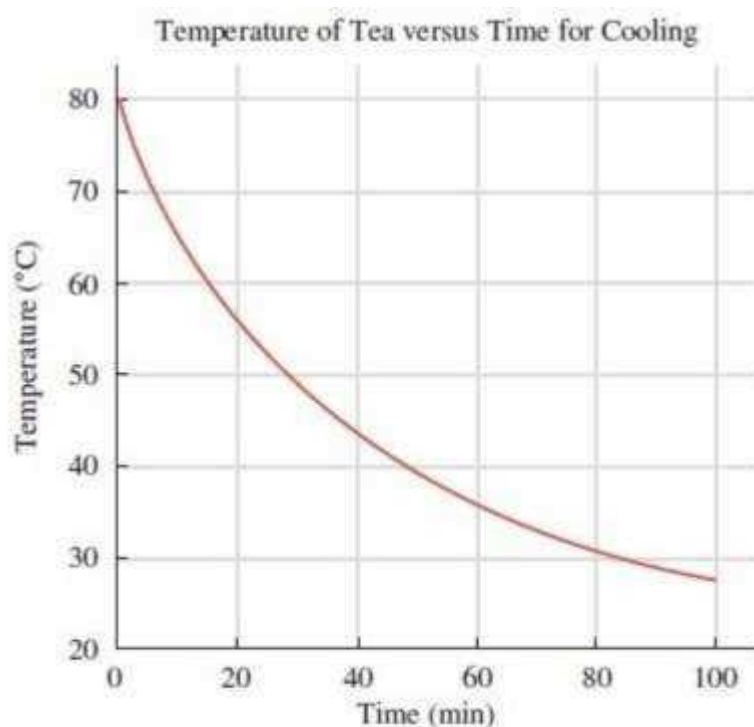
- A) 26 °C
- B) 36 °C
- C) 40 °C
- D) 44 °C
- E) 57 °C

Answer: D

Objective: 1.4

Global Outcomes: GO4

23) On the graph, how long does it take to cool to from 80 °C go 45 °C?



- A) 25 min
- B) 35 min
- C) 42 min
- D) 60 min
- E) 75 min

Answer: C

Objective: 1.4

Global Outcomes: GO4

24) Written in scientific notation, 540 000 is

- A) 0.54×10^6 .
- B) 54×10^8 .
- C) 5.4×10^{-5} .
- D) 5.4×10^5 .
- E) 5.4.

Answer: D

Objective: 1.5

Global Outcomes: GO4

25) Written in scientific notation, 8300 is

- A) 8.3×10^2 .
- B) 8.3×10^3 .
- C) 8.3×10^4 .
- D) 8.3×10^{-3} .
- E) 8.3×10^{-2} .

Answer: B

Objective: 1.5

Global Outcomes: GO4

26) Written in scientific notation, 0.000 000 33 is

- A) 3.3×10^7 .
- B) 3.3×10^{-7} .
- C) 3.3×10^{-8} .
- D) 3.3×10^8 .
- E) 3.3.

Answer: B

Objective: 1.5

Global Outcomes: GO4

27) Written in scientific notation, 0.000 004 03 is

- A) 4.03×10^{-7} .
- B) 4.03×10^{-6} .
- C) 4.03×10^6 .
- D) 0.403×10^{-5} .
- E) 4.03.

Answer: B

Objective: 1.5

Global Outcomes: GO4

1.2 Short Answer Questions

1) A substance that always has the same composition and properties is called a(n) _____.

Answer: chemical

Objective: 1.1

Global Outcomes: GO2

2) Any material used in or produced by a chemical reaction is a(n) _____.

Answer: chemical

Objective: 1.1

Global Outcomes: GO2