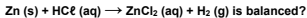


Question 1:

(1 Points) What are the coefficients for the reactants and the products when the equation for the reaction:



a. 1, 2, 1, 1

b. 2, 4, 2, 2

c. 1, 1, 1, 1

1, 2, 1, 2

Group 2

Question 1:

(1 Points) The mass in grams of one mole of silicon atoms is:

a. 14.04 g

b. 28.08 g

c. 56.16 g

42.12 g

Group 3

Question 1:

(1 Points) What is the mass in grams of 6.022×10^{23} atoms of oxygen?

a. $6.022 \times 10^{23}\text{g}$

b. 15.999 g

c. 31.998 g

$1.022 \times 10^{23}\text{g}$

Group 4

Question 1:

(1 Points) The molar mass of ethanol ($\text{C}_2\text{H}_5\text{OH}$) is given by:

a. 46.06 mol/g

MODULE 2

Group 1

Question 1:

(1 Points) Workplace walk-through surveys are performed to:

- a. Meet the new workers
- b. Play cards with the workers
- c. Pass the newspaper around

Recognize the potential impact of workplace hazards

Group 2

Question 1:

(1 Points) A health care worker working in an area with the possibility of exposure to excessive vibration is at risk of being exposed to which of the following agents?

- a. Physical
- b. None of the answers apply
- c. Chemical

Biological

Group 3

Question 1:

(1 Points) The hazard posed by sulfuric acid (a corrosive material) is classified as:

- a. Chemical
- b. Ergonomic
- c. Biological

Physical

Group 4

Question 1:

(1 Points) Which of the following statements is false for acute effects of toxicants?

- a. All of the answers apply
- b. Result from low and repeated exposure over a long period of time
- c. Much more difficult to study

May have latency periods

Group 5

Question 1:

(1 Points) WHMIS consists of:

- a. Provision of MSDS
- b. All of the answers apply
- c. Cautionary labeling of containers of hazardous materials

Provision of worker education program

Group 6

Question 1:

(1 Points) Chemicals causing changes in DNA are known as:

- a. Asphyxiants
- b. Mutagens
- c. Irritants

Teratogens

Group 7

Question 1:

(1 Points) **The unit used to express exposure to gases and vapors is:**

- a. All of the answers apply
- b. mL
- c. mL/m³

ppm

Group 8

Question 1:

(1 Points) **The abbreviation ACGIH stands for:**

- a. American Conference of Governmental Institutional Hygienists
- b. Ancient Congress for Governmental Industrial Hygienists
- c. American Conference of Governmental Industrial Hygienists

None of the answers apply

Group 9

Question 1:

(1 Points) **Grinding of ore generates:**

- a. Mist
- b. Smoke
- c. Fume

Dust

Group 10

Question 1:

(1 Points) Hospital workers are most at risk of encountering biological hazards.

- True
- False

MODULE 3

Group 1

Question 1:

(1 Points) A concentration of 5.0 ppb for a gas in air is equal to:

- a. $1.50 \times 10^5 \%$
- b. $1.5 \times 10^{-3} \%$
- c. 5.0×10^2 ppb

5.0×10^{-3} ppm

Group 2

Question 1:

(1 Points) Which of the following statements is true based upon the information that the TLVs for two chemicals X and Y are 25 ppm and $4.5 \times 10^{-3} \%$ respectively?

- a. Y poses more risk than X
- b. X poses less risk than Y
- c. X and Y pose the similar risk

X poses more risk than Y

Group 3

Question 1:

(1 Points) **The presence of hydrogen bonding in water accounts for its:**

- a. Taste
- b. High specific heat
- c. Color

Odor

Group 4

Question 1:

(1 Points) **Polar covalent compounds dissolve in water by the formation of**

- a. None of the answers apply
- b. Covalent bonds
- c. Nitrogen bonds

Oxygen bonds

Group 5

Question 1:

(1 Points) **Plant debris rest on the surface of water bodies due to:**

- a. Taste of water
- b. No surface tension of water
- c. None of the answers apply

Low surface tension of water

Group 6

Question 1:

(1 Points) Exposure to O_3 may cause:

- a. Enhanced lung function
- b. Reduced lung function
- c. Memory loss

Hair loss

Group 7

Question 1:

(1 Points) NO_x represents:

- a. NO_2 only
- b. Droplets of HNO_3
- c. Particles of nitrate salts

Mixture of oxides of nitrogen

Group 8

Question 1:

(1 Points) Serious damage to lungs may occur on exposure to:

- a. NO_x
- b. H_2O
- c. O_2

CO_2

Group 9

Question 1:

(1 Points) **The formation of sulfuric acid in the atmosphere is due to the reactions of:**

- a. SO_4^{2-}
- b. NO_x
- c. CO

SO_x

Group 10

Question 1:

(1 Points) **Risk characterization integrates the exposure and effects components to estimate the risk.**

- True
- False

MODULE 4

Group 1

Question 1:

(1 Points) **The impact of household cleaners on the environment is minimized because these products are formulated:**

- a. To work with water and end up in wastewater treatment plants
- b. Free of chemicals
- c. With natural ingredients only

To change into environmentally friendly ingredients immediately after use

Group 2

Question 1:

(1 Points) Cationic surfactants are:

- a. None of the answers apply
- b. Both positively and negatively charged
- c. Positively charged

Negatively charged

Group 3

Question 1:

(1 Points) The oxidizing agent generally used during curling of hair is: H_2O_2

- a. H_3O^+
- b. None of the answers apply
- c. H_2O

O_3

Group 4

Question 1:

(1 Points) In creating perfumes, the ingredients are blended based upon their: molecule size and volatility

- a. Color
- b. Price
- c. Place of origin

None of the answers apply

Group 5

Question 1:

(1 Points) **Sunscreen creams are formulated with additional ingredients to:**

- a. Make them look colorful
- b. Absorb certain harmful radiation
- c. Charge a higher price

None of the answers apply

Group 6

Question 1:

(1 Points) **Skin moisturizers are used to:** maintain moisture content of skin

- a. Dry the skin
- b. None of the answers apply
- c. Color the skin

Protect it against sharp objects

Group 7

Question 1:

(1 Points) **In the cleaning process the polar end of the surfactant interacts with water because water is:** polar

- a. Greasy
- b. Non-polar
- c. Dirty

None of the answers apply

Group 8

Question 1:

(1 Points) **Hardness of water is due to the presence of certain:**

- a. Alkali metal ions
- b. None of the above
- c. Halogen ions

Alkaline earth metal ions

Group 9

Question 1:

(1 Points) **Alpha-Hydroxy acids are classified as:**

- a. Bases
- b. Pharmaceuticals
- c. Inorganic acids

Cosmeceuticals

Group 10

Question 1:

(1 Points) **Final step in curling of hair involves a process of reforming the previously broken covalent bonds in the new shape.**

- True
- False