Assessment

Chemistry: Lesson 14

Question 1

What unit is molarity measured in?

A. g/L

B. mol/L

C. g/mol

D. L/mol

The molarity of a solution is defined as the number of

A. moles of solute per liter of solution.

B. moles of solute per kg of solution.

C. grams of solute per liter of solution.

D. moles of solute per kg of solvent.

E. grams of solvent per kg of solution.

Question 3

What is the molarity of a KNO_3 solution containing 2.45 mol KNO_3 in 500. mL of solution?

A. 0.049 M

B. 204 M

C. 2.45 M

D. 0.500 M

E. 4.90 M

Question 4

What is the molarity of 2.0 moles of glucose in 4.0 L of glucose solution?

A. 0.25 M glucose

B. 0.50 M glucose

C. 0.75 M glucose

D. 1.00 M glucose

Question 5

In aqueous solutions, water is the solute.

A. True

B. False

Question 6

The molar mass of NaCl is 58.50 g/mol so 29.25 g NaCl in 1 L of solution has a molarity of 0.5 M.

A. True

B. False

Question 7

1 L of a 12 M solution is diluted to 2 L so its molarity becomes 6 M.

A. True

B. False

Which of the following aqueous solutions will be a strong electrolyte?

A. strong base (KOH) in water

B. ammonia (NH_3) in water

C. ethanol (C_2H_5OH) in water

D. sugar ($C_{12}H_{22}O_{11}$) in water

Which of the following solutions can be classified as non-electrolyte?

A. Table salt (NaCl) in water

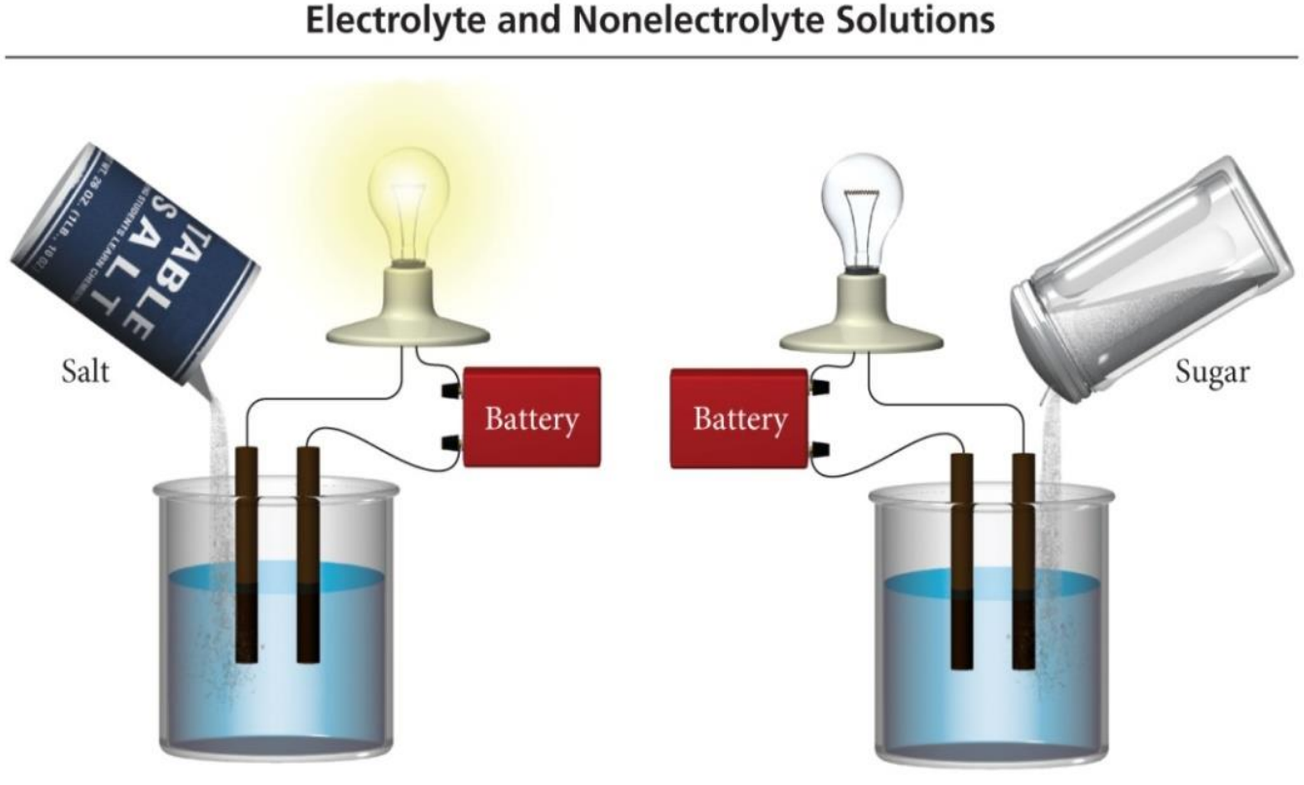
B. ammonia (NH_3) in water

C. Acetic acid (CH_3COOH) in water

D. sugar ($C_{12}H_{22}O_{11}$) in water

Which of the following aqueous solutions would conduct electricity?

a) $AgNO_3$
b) $C_{12}H_{22}O_{11}$ (sucrose)
c) CH_3CH_2OH (ethanol)
d) all of the above
e) none of the above



A substance dissolved in water that CANNOT conduct an electric current is called a(n)

A. electrical compound.

B. strong electrolyte.

C. weak electrolyte.

D. nonelectrolyte.