

Clinical Chemistry Laboratory Math

Clinical Chemistry · Answer Key · 10 Questions

1. What is a homogeneous mixture of a solute and a solvent called?

A) Solution

B) Suspension

C) Colloid

D) Emulsion

2. Which expression of concentration is defined as grams of solute per 100 mL of solution?

A) % w/w

B) % w/v

C) % v/v

D) Molarity

3. How many grams of NaCl are needed to prepare 800 mL of a 0.85% (w/v) solution?

A) 6.8 g

B) 8.5 g

C) 68 g

D) 0.68 g

4. What is the unit of Molarity?

A) mol/kg

B) eq/L

C) mol/L

D) g/L

5. What is the valence (n-factor) used for in the calculation of Normality?

A) Molecular weight

B) Boiling point

C) Electrons/ions exchanged

D) Density

6. How many moles of solute are in a 1 M solution with a volume of 1 liter?

A) 0.5 moles

B) 1 mole

C) 2 moles

D) 4 moles

7. Which property is NOT a colligative property of a solution?

- A) Osmotic pressure
- B) Freezing point
- C) Redox potential**
- D) Vapor pressure

8. If a solution is saturated, what happens if you add more solute?

- A) It dissolves
- B) It remains undissolved**
- C) It disappears
- D) It reacts

9. What is the final dilution if a serum is diluted 1:10, then 1:10, then 1:2?

- A) 1:20
- B) 1:100
- C) 1:200**
- D) 1:400

10. What is the purpose of a seed crystal in a supersaturated solution?

- A) To dilute it
- B) To induce crystallization**
- C) To change the color
- D) To increase temperature