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Create 10 objective questions with options on Separation techniques for year 10 chemistry. Write the correct answers on a separate sheet

1. Which of these techniques are commonly used to separate mixtures?

- A. Heating
- B. Evaporation
- C. Distillation
- D. All of the above

Correct Answer: D. All of the above

2. How does fractional distillation differ from simple distillation?

- A. It uses a fractional condenser
- B. It is done at a lower temperature
- C. It boils the liquid at a much slower rate
- D. It cannot be used for components with similar boiling points

Correct Answer: A. It uses a fractional condenser

3. What type of separation technique is used to separate small particles of a certain size?

- A. Filtration
- B. Thermal Separation
- C. Centrifugation
- D. Distillation

Correct Answer: C. Centrifugation

4. What type of solvent generally is used in liquid-liquid extraction?

- A. Water
- B. Alcohol
- C. Oil
- D. Both B and C

Correct Answer: D. Both B and C

5. Which of the following is not a type of chromatography?

- A. Thin Layer Chromatography
- B. Gel Electrophoresis
- C. Column Chromatography

D. Vapor Chromatography

Correct Answer: D. Vapor Chromatography

6. Which of the following statements about chromatography is false?

A. Various compounds can be separated based on their size

B. It involves comparing samples on two different plates

C. Separations are based on electronegativity

D. Separations are based on chemical properties

Correct Answer: B. It involves comparing samples on two different plates

7. Which technique is commonly used to separate small particles of a certain size that is invisible to the naked eye?

A. Filtration

B. Decanting

C. Sublimation

D. Centrifugation

Correct Answer: D. Centrifugation

8. Which of the following methods is used to separate one solid from another?

A. Filtration

B. Sublimation

C. Crystallization

D. Distillation

Correct Answer: C. Crystallization

9. Which of the following techniques can be used to separate a solid and a liquid?

A. Distillation

B. Decanting

C. Sublimation

D. Filtration

Correct Answer: D. Filtration

10. What does a conical flask typically contain in a liquid-liquid extraction experiment?

A. The solid and liquid being extracted

B. A separating funnel and filter paper

C. The mixture to be extracted and a solvent

D. The mixture being extracted and a beaker

Correct Answer: C. The mixture to be extracted and a solvent