

Please Circle the letter of the correct answer for Questions 1-5.

1) List three PHYSICAL PROPERTIES of matter?

- (a) State of matter density mass
- (b) Color Conductivity Volume
- (c) Size ductility
malleability

2) List three CHEMICAL CHANGES?

- (a) reactions Combustion
- (b) radioactive decay digestion
- (c) biological growth decomposition

3) Define each of the following with regard to the Tyndall test.

- (a) Suspensions- will scatter light; particles settle out over time
- (b) Solutions- will NOT scatter light
- (c) Colloids- will scatter light; particles will not settle out over time

4) When separating a mixture you will use physical properties/changes.

5) Describe each of the following states of matter with regard to movement.

- (a) Solid- least movement; vibration
- (b) Liquid- moderate amount of movement
- (c) Gas- particles move freely

6) Define FILTRATION.

a separation process that uses particle size to separate a mixture.

7) Define DISTILLATION.

a separation process that uses boiling point to separate a mixture.

8) List two examples of ELEMENTS?

(a) Hydrogen Lithium Oxygen
(b) Helium Carbon (Any from periodic Table!)

9) List two examples of COMPOUNDS?

(a) H₂O NaCl CO
(b) HCl CO₂ H₂SO₄

10) Define HOMOGENEOUS MIXTURE and give an EXAMPLE.

Mixtures that are the same throughout a given sample.
Example: Salt water, Sugar water, air, Brass

11) Define HETEROGENEOUS MIXTURE and give an EXAMPLE.

Mixtures that are not the same throughout

Example: Fruit salad, Muddy water

12) What type of change results in the formation of a new substance? CHEMICAL or PHYSICAL

Chemical

13) Explain the three (3) phases of matter with respect to shape and volume. (3 points)

Solid has a definite shape and volume

liquid has a definite volume but takes the shape of the container

gas has no definite shape or volume it expands to take up the shape and volume of the container

14) Choose any substance that you are familiar with and describe how you could change this substance physically and then how you could change this substance chemically. (2 points)

paper - physical - tear it in half

Chemical - burn it

15) What two categories of matter are considered Pure Substances?

Elements and Compounds