

Exam

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Solids have a _____ shape and are not appreciably _____. 1) _____
A) sharp, convertible
B) definite, incompressible
C) indefinite, compressible
D) definite, compressible
E) indefinite, incompressible
- 2) An element cannot _____. 2) _____
A) be separated into other substances by chemical means
B) be part of a heterogeneous mixture
C) interact with other elements to form compounds
D) be a pure substance
E) be part of a homogeneous mixture
- 3) The number 0.00430 has _____ significant figures. 3) _____
A) 6 B) 2 C) 3 D) 5 E) 4
- 4) What is the physical state in which matter has no specific shape but does have a specific volume? 4) _____
A) ice B) gas C) salts D) solid E) liquid
- 5) Which one of the following is often easily separated into its components by simple techniques such as filtering or decanting? 5) _____
A) solutions
B) heterogeneous mixture
C) homogeneous mixture
D) compounds
E) elements
- 6) The volume of a regular cylinder is $V = \pi r^2 h$. Using the value 3.1416 for the constant π , the volume (cm³) of a cylinder of radius 2.34 cm and height 19.91 cm expressed to the correct number of significant figures is _____. 6) _____
A) 343 B) 342.495 C) 342.49471 D) 342.49 E) 342

- 7) Which one of the following is not an intensive property? 7) _____
- A) mass
 - B) density
 - C) temperature
 - D) melting point
 - E) boiling point
- 8) In which one of the following numbers are all of the zeros significant? 8) _____
- A) 100.090090
 - B) 0.143290
 - C) 00.0030020
 - D) 0.05843
 - E) 0.1000
- 9) Express the temperature, 422.35 K, in degrees Celsius. 9) _____
- A) 22.78°C B) 149.20°C C) 792.23°C D) 50.89°C E) 695.50°C
- 10) Accuracy refers to _____. 10) _____
- A) how close a measured number is to the calculated value
 - B) how close a measured number is to infinity
 - C) how close a measured number is to other measured numbers
 - D) how close a measured number is to the true value
 - E) how close a measured number is to zero
- 11) Which of the following is an illustration of the law of constant composition? 11) _____
- A) Water is a compound.
 - B) Water and salt have different boiling points.
 - C) Water is 11% hydrogen and 89% oxygen by mass.
 - D) Water can be separated into other substances by a chemical process.
 - E) Water boils at 100°C at 1 atm pressure.