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 (cm^3) 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.