

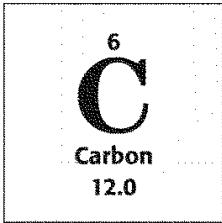
## The Periodic Table And Atomic Structure Test

### Multiple Choice

*Identify the choice that best completes the statement or answers the question.*

- 31) The smallest particle into which an element can be divided and still have the properties of that element is called a(n)  
A) nucleus. B) electron. C) atom. D) neutron.
- 32) How would you describe the nucleus?  
A) dense, positively charged B) mostly empty space, positively charged C) tiny, negatively charged  
D) dense, negatively charged
- 33) Where are electrons likely to be found?  
A) in the nucleus B) in electron clouds C) mixed throughout an atom D) in definite paths
- 34) Every atom of a given element has the same number of  
A) protons. B) neutrons. C) electrons. D) isotopes.
- 35) What is the meaning of the word *atom*?  
A) dividable B) invisible C) hard particles D) not able to be divided
- 36) Which statement is true about isotopes of the same element?  
A) They have the same number of protons. B) They have the same number of neutrons. C) They have a different atomic number. D) They have the same mass.
- 37) Which of the following has the least mass in an atom?  
A) nucleus B) proton C) neutron D) electron
- 38) If an isotope of uranium, uranium-235, has 92 protons, how many protons does the isotope uranium-238 have?  
A) 92 B) 95 C) 143 D) 146
- 39) A carbon atom with 6 protons, 6 electrons, and 6 neutrons would have a mass number of  
A) 6. B) 18. C) 12. D) 15.
- 40) *Periodic* describes  
A) something that occurs at regular intervals. B) something that occurs very rarely. C) something that occurs frequently. D) something that occurs three or four times a year.
- 41) The elements in each vertical column on the periodic table usually have similar properties and are called a(n)  
A) period. B) group. C) element. D) property.
- 42) The elements to the right of the zigzag line on the periodic table are called

- A) metalloids. B) conductors. C) metals. D) nonmetals.
- 43) Most metals are  
A) solid at room temperature. B) bad conductors of electric current. C) dull. D) not malleable.
- 44) The properties of elements in a horizontal row of the periodic table follow  
A) a nonrepeating pattern. B) a periodic pattern. C) no pattern. D) an unpredictable pattern.
- 45) Elements on the periodic table are arranged in order of  
A) increasing density. B) decreasing density. C) increasing atomic number. D) decreasing atomic number.
- 46) Which of the following statements describes most metals?  
A) They are easily shattered. B) They are gases at room temperature. C) They are dull. D) They are good conductors of electric current.
- 47) Which of the following is a property of alkali metals?  
A) They are so hard they cannot be cut. B) They are very reactive. C) They are stored in water. D) They have few uses.
- 48) Most of the elements in the periodic table are  
A) metals. B) metalloids. C) gases. D) nonmetals.
- 49) A horizontal row on the periodic table is called a(n)  
A) group. B) family. C) period. D) atomic number.
- 50) Elements lying along the zigzag line on a periodic table are  
A) metals B) nonmetals C) metalloids D) noble gases
- 51) How do the physical and chemical properties of the elements change?  
A) periodically within a group B) periodically across each period C) periodically within a family  
D) periodically across each group
- 52) Transition metals are  
A) good conductors of thermal energy. B) more reactive than alkali metals. C) not good conductors of electric current. D) used to make aluminum.



- 53) The letter C is carbon's  
A) atomic number. B) atomic mass. C) chemical symbol. D) element name.
- 54) The number at the top is the  
A) atomic number. B) element name. C) atomic mass. D) chemical symbol.
- 55) The carbon group has two metalloids, both of which are used to make  
A) dinnerware. B) foil. C) cans. D) computer chips.
- 56) Which one of the following tells the physical state of an element at room temperature?  
A) the atomic number B) the color of the chemical symbol C) the atomic mass D) the element name

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### Answer Section

#### MULTIPLE CHOICE

- |            |                                       |
|------------|---------------------------------------|
| 31) ANS: C | KEY: atom                             |
| 32) ANS: A | KEY: nucleus                          |
| 33) ANS: B | KEY: electron                         |
| 34) ANS: A | KEY: proton                           |
| 35) ANS: D | KEY: atom                             |
| 36) ANS: A | KEY: isotope                          |
| 37) ANS: D | KEY: electron                         |
| 38) ANS: A | KEY: isotope   proton                 |
| 39) ANS: C | KEY: mass number                      |
| 40) ANS: A | KEY: periodic                         |
| 41) ANS: B | KEY: group                            |
| 42) ANS: D | KEY: nonmetal                         |
| 43) ANS: A | KEY: metal                            |
| 44) ANS: B | KEY: periodic pattern                 |
| 45) ANS: C | KEY: periodic table   atomic number   |
| 46) ANS: D | KEY: metal   conductor                |
| 47) ANS: B | KEY: alkali metal   reactive          |
| 48) ANS: A | KEY: metal                            |
| 49) ANS: C | KEY: period                           |
| 50) ANS: C | KEY: metalloid                        |
| 51) ANS: B | KEY: period                           |
| 52) ANS: A | KEY: transition metal                 |
| 53) ANS: C | KEY: carbon   chemical symbol         |
| 54) ANS: A | KEY: atomic number                    |
| 55) ANS: D | KEY: carbon   metalloid               |
| 56) ANS: B | KEY: physical state   chemical symbol |