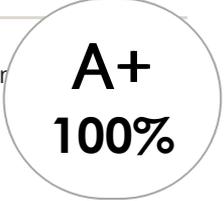


## 20 Multiple choice questions



**A+**  
**100%**

- a substance formed when two or more chemical elements are chemically bonded together in the same  
  - element
  - ion
  - biosphere
  - CORRECT: compound**
  
- a set of methods for quantitatively determining a sample based on mass  
  - electrolysis
  - atomic number
  - CORRECT: gravimetric analysis**
  - chemical changes
  
- different forms of an element; they may have different physical or chemical properties  
  - CORRECT: allotropes**
  - electron
  - isotopes
  - electrolysis
  
- an elementary particle of an atom, found in shells surrounding the nucleus  
  - electrolysis
  - CORRECT: electron**
  - element
  - allotropes
  
- the chemical reaction occurring when an electric current passes through a liquid; often used for obtaining pure elements  
  - allotropes
  - isotopes
  - CORRECT: electrolysis**
  - electron

6. a chemical reaction when a compound splits up into elements or simpler compounds
  - a. electrolysis
  - b. **CORRECT: decomposition**
  - c. electron
  - d. compound
  
7. atoms linked by chemical bonds with sharing of electrons e.g. oxygen, carbon dioxide
  - a. **CORRECT: covalent molecules**
  - b. electrolysis
  - c. allotropes
  - d. atmosphere
  
8. chemical equations that show the formation of ions by the loss or gain of electrons
  - a. atomic number
  - b. **CORRECT: ionic equations**
  - c. ionic compounds
  - d. balanced equation
  
9. an equation using chemical symbols, having equal numbers of each atom on both sides
  - a. electron
  - b. **CORRECT: balanced equation**
  - c. decomposition
  - d. ionic equations
  
10. changes that lead to a new substance being formed
  - a. allotropes
  - b. empirical formula
  - c. atomic number
  - d. **CORRECT: chemical changes**

11. atoms of the same element that have the same atomic number but different mass number i.e. they have the same number of protons, but a different number of neutrons
- CORRECT: isotopes**
  - compound
  - allotropes
  - ion
12. the envelope of gas, vapour and aerosol particles surrounding the Earth, forming constituent in the environment of most forms of terrestrial life
- biosphere
  - CORRECT: atmosphere**
  - hydrosphere
  - isotopes
13. a substance with attraction between positive and negative ions e.g. NaCl
- isotopes
  - compound
  - ionic equations
  - CORRECT: ionic compounds**
14. an atom or group of atoms that has become electrically charged by the gain or loss of electrons e.g. Cl<sup>-</sup>, Na<sup>+</sup>
- electron
  - element
  - compound
  - CORRECT: ion**
15. all the water of the Earth, in the oceans, rivers, lakes etc.
- biosphere
  - atmosphere
  - CORRECT: hydrosphere**
  - isotopes

16. the number of protons in the nucleus of an atom, defining the chemical element
- compound
  - CORRECT: atomic number**
  - atmosphere
  - allotropes
17. a formula giving the proportions of the elements present in a compound but not the actual numbers or arrangement of atoms
- ionic compounds
  - CORRECT: empirical formula**
  - chemical changes
  - atomic number
18. a substance composed of atoms of the same atomic number, incapable of being broken down to simpler substances displaying the same properties
- compound
  - electron
  - CORRECT: element**
  - ion
19. a substance with covalent bonds between atoms extending in a 3-dimensional network e.g. diamond, silicon oxide
- covalent molecules
  - balanced equation
  - CORRECT: covalent network substance**
  - electrolysis
20. the region of the Earth inhabited by living things, including air, land and water
- compound
  - CORRECT: biosphere**
  - atmosphere
  - hydrosphere