

20 Multiple choice questions

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

7. atoms linked by chemical bonds with sharing of electrons e.g. oxygen, carbon dioxide
 - a. 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. 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. 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. 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
 - a. isotopes
 - b. compound
 - c. allotropes
 - d. ion

12. the envelope of gas, vapour and aerosol particles surrounding the Earth, forming constituent in the environment of most forms of terrestrial life
 - a. biosphere
 - b. atmosphere
 - c. hydrosphere
 - d. isotopes

13. a substance with attraction between positive and negative ions e.g. NaCl
- isotopes
 - compound
 - ionic equations
 - ionic compounds
14. an atom or group of atoms that has become electrically charged by the gain or loss of electrons e.g. Cl⁻, Na⁺
- electron
 - element
 - compound
 - ion
15. all the water of the Earth, in the oceans, rivers, lakes etc.
- biosphere
 - atmosphere
 - hydrosphere
 - isotopes
16. the number of protons in the nucleus of an atom, defining the chemical element
- compound
 - 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
 - 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
 - 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
 - covalent network substance
 - electrolysis
20. the region of the Earth inhabited by living things, including air, land and water
- compound
 - biosphere
 - atmosphere
 - hydrosphere