Hohete Tibeb Share Company
Education and Technology Team
Ethio-Parents' Schools: Addis Ababa (Gerji/Gullele) and Hawassa.
Chemistry Centralized Worksheet 9 for Grade 7

Name _____ *Section* _____ *Campus* _____

Direction: **CHOOSE THE BEST ANSWER AND WRITE THE LETTER OF YOUR CHOICE ON YOUR OWN TSEPARATE ANSWER SHEET PROVIDED.**

1. An element with the electron configuration 2,8,2 belongs to
   A. Group IIIA C. Period 2
   B. Period 4 D. Group IIA
2. Which of the following increases down a group in the periodic table?
   A. Electron affinity C. Metallic character
   B. Electro negativity D. Ionization energy
3. Which one of the following is true about nuclear charge in the modern periodic table?
   A. Decreases from left to right and increases from top to bottom.
   B. Increases from left to right and decreases from top to bottom.
   C. Decreases from left to right and from top to bottom.
   D. Increases from left to right and from top to bottom.
4. Which one of the following elements is an alkaline earth metal?
   A. Sr C. Sc
   B. Ga D. Cs
5. The position of the elements with atomic number 15 in the periodic table is:
   A. Group IVA and period 3
   B. Group VIA and period 3
   C. Group III A and period 4
   D. Group VA and period 3
6. Which of the following represents the electronic configuration of the elements in the same period of the periodic table?
   A. 2,4 : 2,6: 2,8 C. 2,1: 2,8: 2,8,2
   B. 2,5: 2,8,2: 2,7 D. 2,7: 2,8,1: 2,5
7. Which of the following is true about the structure of an atom?
   A. Elements are parts of the nucleus
   B. Neutrons are positively charged components
   C. Neutrons are the heaviest substance particles
   D. Protons revolve around the nucleus
8. The electron configure of Ar (Z=18) is
   A. 2,8,8. C. 2,16.
   B. 2,8. D. 8,2,8.
9. Which of the following is true about the historical development of atomic theory?
   A. Aristotle supported the idea of the discreet nature of matter.
   B. Democritus beloved that matter is continuous.
   C. Dalton proposed that atoms are divisible.
   D. Modern atomic theory states that all substances are made of.
10. The Greek philosopher who proposed the concept of an atom was:
    A. Dalton C. Aristotle
    B. Robert Boyle D. Democritus

11. In all chemical reactions the total mass of the reactants is equal to that of the products. This Law is
    A. law of constant proportion.
    B. law of conservation of mass.
    C. law of mass action.
    D. law of multiple proportions.

12. How many atoms are present in (4 $NaNO_3$)?
    A. 16 C. 20
    B. 14 D. 18

13. How many kinds of molecules are involved in the following equation?
    $2C_2H_6 + 7O_2 \longrightarrow 4CO_2 + 6H_2O$
    A. 21 C. 19
    B. 4 D.6

14. Which one of the following is the shortcoming of Dalton's atomic theory?
    A. Atoms of the same element have the same mass
    B. Matter consists of very small particles called atoms
    C. Atoms of one element are different from atoms of other elements in mass and other properties
    D. Atoms combine in a fixed small whole number ratio to form compounds

15. Which one of the following is the lightest sub- atomic particle?
    A. Proton C. Ion
    B. Electron D. Neutron

16. How many electrons are there in $A1^{3+}$?
    A. 8 C. 10
    B. 13 D. 3

17. $3H_2$ contains:
    A. Three hydrogen molecules
    B. Two hydrogen atoms
    C. Three hydrogen atoms
    D. Six hydrogen molecules

18. What would be the atomic number of atom with six valence electrons?
    A. 12 C. 6
    B. 10 D.8

19. Which of the following is NOT true about modern atomic theory?
    A. An element is made of atoms.
    B. All atoms of the same element have same number of neutrons.
    C. Atoms of different elements combine in small whole numbers to form compounds.
    D. Atoms of different elements are different because of the different number of protons.

20. An atom $^{24}_{12}Mg$ contains
    A. 12 protons, 14 neutrons, 12 electrons.
    B. 12 protons, 12 neutrons, 12 electrons.
    C. 12 protons, 6 neutrons, 6 electrons.
    D. 6 protons, 6 neutrons, 6 electrons.

21. The horizontal row of elements in the periodic table is called
    A. Group C. Family
    B. Period D. Block

22. The statement "When elements are arranged in increasing atomic mass every eighth elements has similar properties to the first one "is known as:
    A. Mendeleev's law C. Mosley's law
    B. The triad law D. The law of octet

23. An element is found in group IV and period 3 of the periodic table; then the electronic configuration of the elements is:
    A. 2,8,4 C. 2,8,3
    B. 2,8,18,4 D. 2,8,8

24. Atoms of an element have seven valence electrons: then the element is found in _____of the periodic table.
    A. period seven C. The seventh row
    B. Group seven D. The seventh column

25. Which of the following is NOT useful in giving information of the periodic table?
    A. To simplify the study of properties of element.
    B. To compare reactivity of the elements.
    C. To predict new elements.
    D. To indicate occurrence of the elements.

26. Which of the following is among the shortcomings of Mendeleev's periodic table?
    A. Elements were arranged by their atomic number
    B. Some elements were not placed in their exact position
    C. Gaps were left for some undiscovered elements
    D. It helped the discovery of new elements

27. In the modern periodic table, properties of elements are periodic function of their:
    A. Atomic mass C. Atomic size
    B. Atomic number D. Mass number

28. An element has the electron configuration 2,8,7. The element is found in
    A. period 3, group VIIA. B. period 7, group IIIA.
    B. Period 2, group IA. D. Period 4, group IIA.

29. Element Y is a gaseous non- metal with high electron affinity and electro negativity its location in the periodic table is likely to be
    A. s – Block. C. p – Block.
    B. d- Block. D. f- Block.

30. Substance "X" is a hard, lustrous solid which readily conducts heat and electricity "X" is likely to be
    A. Metalloid. C. non – metal.
    B. Salt. D. metal.

31. An element 'X' reacts with a metal to form a salt. To which group of the periodic table could the element 'X' be found?
    A. Group I C. Group II
    B. Group VII D. Group VIII

32. In sodium ion, Na^+ (Atomic number No = 11) number of
    A. electron and protons are equal.
    B. protons is greater than number of electrons.
    C. protons is less than number of electrons
    D. electron is greater than number of neutrons.

33. What is the electron configuration of silicon? (Si = 14)?
    A. 2, 8, 4 C. 2, 12
    B. 2, 12,2 D. 2,8,8,4

34. The collective name given to protons and neutrons is
    A. nucleus C. atom
    B. molecule D. nucleon

35. How many elements are there in the third period of the modern periodic table?
    A. 2 C. 18
    B. 8 D. 32

36. Group VII Elements are called _____.
    A. halogens C. alkali Metals
    B. chalcogens D. alkaline earth metals

37. The energy released when an electron is added to a neutral atom is known as
    A. ionization energy C. electron affinity.
    B. metallic character D. electron negativity.