

Language of Chemistry – MCQs

Symbols

- The symbol is of an element.
a. Colour b. short form c. weight d. size
- Helium is represented by
a. H b. Hi c. He d. O
- Which symbol is written correctly?
a. AL b. al c. aL d. Al
- Na stands for
a. Nitrogen b. Neon c. Nickeld. Sodium
- Which symbol comes from the Latin name?
a. K b. N c. O d. Cl
- Fe is the symbol for
a. Fluorine b. Iron c. Francium d. Fermium
- Which is the correct notation for chlorine?
a. Cl- b. cL c. cl d. Cl
- Which is not a correct symbol?
a. Mg b. Fe c. na d. Zn
- Which of the following is the symbol for Tin?
a) Ti b) Tn c) Sn d) Pb
- Pb is the symbol for
a. Palladium b. platinum c. lead d. phosphorus
- . The symbol of Gold is:
a) Go b) Gd c) Au d) Ag
- Phosphorus glows green in the atmosphere. Is also called ghost light by people. What is the symbol of the element phosphorus?
a. Ps b. K c. Po d. P
- The Latin name of Iron is:
a) Ferrum b) Aurum c) Cuprum d) Stannum
- The symbol 'P' represents:
a) Potassium b) Phosphorus c) Platinum d) Plumbum
- The atomic number of calcium is
a. 40 b. 20 c. 35.5 d. 39
- Which of the following sequences is correct if the given elements are arranged according to increasing atomic number
a. Fe, Co, Ni, Cu b. Co, Fe, Ni, Cu c. Fe, Ni, Co, Cu d. Cu, Fe, Co, Ni
- Which of the following statements is incorrect?
a. A unique symbol denotes each element.
b. The chemical symbol for copper is Co.
c. No two elements have the same symbol.
d. At present, the symbols of elements finalised by IUPAC are used.
- Which of the following statements is **incorrect**?
a. Aurum is the Greek name for Gold.
b. An element can have more than one symbol.
c. A symbol of an element has its qualitative and quantitative significances.

Valency

- What is the valency of Oxygen in H₂O?
a) 1 b) 2 c) 3 d) 4
- What is the valency of lead in plumbic chloride?
a. 1 b. 2 c. 3 d. 4
- Which of the following elements does not show variable valency
a. Ag b. Cu c. **Zn** d. Fe
- Ferric means the valency of Iron is:
a) 1 b) 2 c) 3 d) 4

23. Which of these statements about valency is TRUE?
 a) All atoms of an element always have the same valency
 b) Some elements can show more than one valency
 c) Valency is always equal to the atomic number
 d) Only metals have a valency
24. Which of the following elements has the same valency as the number of valence electrons?
 a. Oxygen b. carbon c. nitrogen d. chlorine
25. Which statement is wrong?
 a. The valency of sodium is 1 C. The atomic number of sodium is 11.
 b. Methane is an organic compound. D. Calcium shows variable valency.

Radicals

26. Cl^- is called:
 a) Chloride ion b) Chlorine gas c) Chlorate d) Chlorite
27. NH_4^+ is called:
 a) Nitrate ion b) Ammonium ion c) Nitrite ion d) Amide ion
28. The valency of a radical means the number of:
 a) atoms b) charges (sign ignored) c) molecules d) electrons only
29. A group of atoms with a charge is called a:
 a) molecule b) radical c) symbol d) element
30. Na^+ is an example of a:
 a) negative radical b) positive radical c) neutral atom d) formula
31. SO_4^{2-} is an example of a:
 a) simple radical b) compound radical c) basic radical d) neutral radical

Molecular formula

32. The formula of water is:
 a) HO b) H_2O c) H_3O d) HO_2
33. Valency of Ca is 2. Valency of Cl is 1. What is the correct formula?
 a) Ca_2Cl b) CaCl_2 c) CaCl d) Ca_2Cl_2
34. Ferric oxide has Iron with valency 3, and Oxygen has valency 2. What is the correct formula?
 a) FeO b) FeO_3 c) Fe_2O_3 d) Fe_3O_2
35. 'Co' is the symbol for Cobalt. What does 'CO' (both capital) mean?
 a) Cobalt b) Carbon monoxide c) Cobalt oxide d) It means the same as 'Co'
36. In the formula Al_2O_3 , what do the small numbers 2 and 3 actually tell us?
 a) The valency of Al and O
 b) The number of atoms of Al and O in one molecule
 c) The atomic number of Al and O
 d) The mass of Al and O
37. What is the valency of Fe in the compound FeCl_3 ? (Cl has valency 1)
 a) 1 b) 2 c) 3 d) It cannot be found
38. A formula that shows how atoms are joined is called:
 a) molecular formula b) structural formula c) short formula d) radical formula
39. The formula of Aluminium Oxide is:
 a) AlO b) Al_2O_3 c) Al_3O_2 d) AlO_3

Chemical Equations

40. An equation tells us about:
 a) The speed of the reaction b) The reactants and products
 c) The exact time taken d) The colour of the products
41. A chemical equation is written using:
 a) only words b) symbols and formulas c) only numbers d) pictures
42. For an equation to be correct, it must be:
 a) long b) balanced c) colourful d) short
43. A chemical equation does NOT tell us:
 a) the reactants b) the products c) the speed of reaction d) that atoms balance
44. $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$ only happens on strong heating. Which symbol is missing from this equation?
 a) (aq) after CaCO_3 b) Δ above the arrow c) A catalyst name above the arrow d) (g) after CaO

45. The symbol (s) after a formula means the substance is:
 a) gas b) liquid c) solid d) dissolved in water
46. The symbol (aq) means the substance is:
 a) a solid b) a gas c) dissolved in water d) a pure metal
47. The sign Δ over an arrow means:
 a) light is needed b) heat is needed c) pressure is needed d) nothing is needed
48. $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$ — this equation is:
 a) balanced b) not balanced c) a wrong reaction d) an element
49. We balance equations because matter can neither be:
 a) seen nor touched b) created nor destroyed c) heavy nor light d) solid nor liquid
50. Which of these equations is correctly balanced?
 a) $\text{H}_2 + \text{Cl}_2 \rightarrow \text{HCl}$ b) $\text{H}_2 + \text{Cl}_2 \rightarrow 2 \text{HCl}$
 c) $2\text{H}_2 + \text{Cl}_2 \rightarrow \text{HCl}$ d) $\text{H}_2 + 2\text{Cl} \rightarrow \text{HCl}$
51. Look at this equation: $\text{Zn} + \text{HCl} \rightarrow \text{ZnCl}_2 + \text{H}_2$. Is it balanced?
 a) Yes, it is already balanced
 b) No — it should be $\text{Zn} + 2\text{HCl} \rightarrow \text{ZnCl}_2 + \text{H}_2$
 c) No — it should be $2\text{Zn} + \text{HCl} \rightarrow \text{ZnCl}_2 + \text{H}_2$
 d) No — it should be $\text{Zn} + \text{HCl} \rightarrow 2\text{ZnCl}_2 + \text{H}_2$
52. A student balances $\text{N}_2 + \text{H}_2 \rightarrow \text{NH}_3$ as: $2\text{N}_2 + 3\text{H}_2 \rightarrow \text{NH}_3$. What is wrong here?
 a) Nothing, it is correctly balanced
 b) Nitrogen is not balanced — left has 4 N, right has only 1 N
 c) Hydrogen is not balanced
 d) It should have no numbers at all
53. When two substances join to form one, it is called:
 a) decomposition b) combination c) displacement d) hydrolysis
54. When one substance breaks into two, it is called:
 a) combination b) decomposition c) displacement d) polymerisation
55. $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$ is an example of:
 a) decomposition b) neutralisation c) polymerisation d) hydrolysis
56. Many small molecules joining to form one big molecule is called:
 a) hydrolysis b) polymerisation c) decomposition d) displacement
57. In a double displacement reaction:
 a) one product forms b) two compounds swap partners c) nothing changes d) only gas forms
58. $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$ is an example of:
 a) combination b) decomposition c) displacement d) neutralisation
59. Splitting of a compound by water is called:
 a) hydrolysis b) polymerisation c) combination d) displacement
60. The reaction $\text{H}_2\text{SO}_4 + 2 \text{KOH} \rightarrow \text{K}_2\text{SO}_4 + 2 \text{H}_2\text{O}$: is an example of
 a. combination b. neutralisation c. polymerization d. decomposition
61. $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$ — after balancing, what TYPE of reaction is this?
 a) Decomposition, because water breaks apart
 b) Combination, because two elements join to form one compound
 c) Displacement
 d) Double displacement
62. $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$ looks like a double displacement reaction. What is its correct, more specific name?
 a) Combination b) Acid-base (Neutralisation) c) Decomposition d) Polymerisation
63. A catalyst is written:
 a) below the arrow b) above the arrow c) after the products d) it is never written
64. Photosynthesis needs which condition?
 a) heat only b) light c) pressure only d) no condition