

- The correct representation of symbol of cobalt is  
a) cO                                      b) Co                                      c) CO                                      d) all
- Formula of sodium peroxide is  
a) NaO                                      b) Na<sub>2</sub>O<sub>2</sub>                                      c) Na<sub>2</sub>O                                      d) NaO<sub>2</sub>
- Which of the following element show variable valency?  
a) sodium                                      b) magnesium                                      c) aluminium                                      d) iron
- Sulphate ion is  
a) SO<sub>3</sub><sup>2-</sup>                                      b) SO<sub>4</sub><sup>-</sup>                                      c) SO<sub>4</sub><sup>2-</sup>                                      d) SO<sub>3</sub><sup>-</sup>
- An element which exhibits more than one valency is said to have  
a) multiple vacancy                                      b) variable valency                                      c) bivalent valency                                      d) trivalent valency
- ferrous hydroxide is  
(A) Fe(OH)<sub>3</sub>                                      (B) Fe(OH)<sub>2</sub>                                      (C) Fe<sub>2</sub>O<sub>3</sub>                                      (D) FeO
- Choose the correct formula for the following radicals.  
i) phosphate                                      ii) phosphite                                      iii) phosphide                                      iv) nitride  
a) N<sup>-</sup>, PO<sub>3</sub><sup>3-</sup>, PO<sub>4</sub><sup>3-</sup>, P<sup>3-</sup>                                      b) PO<sub>4</sub><sup>3-</sup>, PO<sub>3</sub><sup>3-</sup>, P<sup>3-</sup>, N<sup>3-</sup>  
c) PO<sub>3</sub><sup>3-</sup>, N<sup>3-</sup>, P<sup>3-</sup>, PO<sub>4</sub><sup>3-</sup>                                      d) P<sup>3-</sup>, PO<sub>3</sub><sup>3-</sup>, PO<sub>4</sub><sup>3-</sup>, N<sup>-</sup>
- Nucleus of an element has nine protons. Its valency would be  
a) 1                                      b) 9                                      c) 3                                      d) 5
- Element A having 5 valency electrons combines with element B having 6 valency electrons. The formula of the resulting compound is  
a) A<sub>3</sub>B<sub>2</sub>                                      b) AB                                      c) AB<sub>2</sub>                                      d) A<sub>2</sub>B<sub>3</sub>
- Two atoms X and Y have 2 and 6 electrons respectively in outermost shell. The formula of the compound formed between X and Y is  
a) X<sub>2</sub>Y                                      b) XY<sub>2</sub>                                      c) XY                                      d) X<sub>2</sub>Y<sub>3</sub>
- The tetra atomic element, among the following is  
a) oxygen                                      b) nitrogen                                      c) phosphorus                                      d) sulphur
- The number of neutrons in an atom is equal to  
a) A + Z                                      b) A - Z                                      c) Z - A                                      d) A × Z
- The valency of carbon in CH<sub>4</sub> is  
a) 1                                      b) 2                                      c) 4                                      d) 6
- Match the following  

Element	Valency
A) Silicon	1) 1
B) Magnesium	2) 2
C) Potassium	3) 3
D) Aluminium	4) 4

a) A-4, B-2, C-3, D-1      b) A-4, B-2, C-1, D-3      c) A-4, B-3, C-1, D-2      d) A-4, B-1, C-2, D-3
- Compound ion among the following is  
a) Ag<sup>+</sup>                                      b) O<sub>2</sub><sup>-2</sup>                                      c) SO<sub>4</sub><sup>-2</sup>                                      d) S<sup>-2</sup>

16. The formula of magnesium chloride is  
 a) MgCl                      b) Mg<sub>2</sub>Cl                      c) MgCl<sub>2</sub>                      d) None of these
17. The formula of ferrous ion is  
 a) Fe<sup>+2</sup>                      b) Fe<sup>+</sup>                      c) Fe<sup>+3</sup>                      d) Fe<sup>+4</sup>
18. The charge of ammonium ion is  
 a) +1                      b) +2                      c) +3                      d) -1
19. Find the molecular mass of glucose molecule (C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>)  
 a) 18 amu                      b) 44 amu                      c) 327 amu                      d) 180 amu
20. Atomic mass of Aluminium metal is  
 a) 24 amu                      b) 27 amu                      c) 30 amu                      d) 39 amu
21. X<sup>-3</sup> ion contains 10 electrons in it. "X" is  
 a) Oxygen                      b) Nitrogen                      c) Carbon                      d) Fluorine
22. Latin Name of Tungsten is  
 a) Plumber                      b) Stibbium                      c) Stannum                      d) Woifram
23. Electronic configuration of P<sup>-3</sup> ion is  
 a) 2, 8                      b) 2, 8, 5                      c) 2, 8, 8                      d) 2, 5
24. CO<sub>3</sub><sup>2-</sup> ion has \_\_\_\_\_ electrons and \_\_\_\_\_ protons  
 a) 30, 30                      b) 32, 32                      c) 32, 30                      d) 30, 32
25. Which of the following chemical equation is not balanced?  
 a) N<sub>2</sub> + 3H<sub>2</sub> → 2NH<sub>3</sub>                      b) 2KClO<sub>3</sub> → 2KCl + 2O<sub>2</sub>  
 c) 2KMnO<sub>4</sub> → K<sub>2</sub>MnO<sub>4</sub> + MnO<sub>2</sub> + O<sub>2</sub>                      d) 4NH<sub>3</sub> + 5O<sub>2</sub> → 4NO + 6H<sub>2</sub>O
26. PbS + H<sub>2</sub>O<sub>2</sub> → PbSO<sub>4</sub> + H<sub>2</sub>O  
 Identify the set of numbers to balance the above equation  
 a) 1, 4, 1, 4                      b) 2, 4, 2, 4                      c) 4, 1, 4, 1                      d) 3, 1, 3, 4
27. Balancing of chemical equation is done to satisfy  
 a) Law of multiple proportion                      b) Law of Conservation of mass  
 c) Law of Definite proportion                      d) All the above law
28. KIO<sub>3</sub> + O<sub>2</sub> + H<sub>2</sub>O → K<sub>2</sub>SO<sub>4</sub> + H<sub>2</sub>SO<sub>4</sub> + I<sub>2</sub>  
 The correct set of number to balance the equation is  
 a) 2, 5, 1, 4, 1, 3                      b) 2, 5, 4, 3, 2, 1                      c) 2, 5, 4, 1, 4, 1                      d) 2, 5, 1, 4, 4, 1
29. Formula of Ammonium Oxalate is  
 a) (NH<sub>4</sub>)<sub>2</sub>CO<sub>3</sub>                      b) (NH<sub>4</sub>)<sub>3</sub>C<sub>2</sub>O<sub>4</sub>                      c) (NH<sub>4</sub>)<sub>2</sub>C<sub>2</sub>O<sub>4</sub>                      d) (NH<sub>4</sub>)<sub>3</sub>CO<sub>3</sub>
30. H<sub>3</sub>PO<sub>4</sub> is formula for  
 a) Phosphorus acid                      b) Phosphoric acid                      c) Nitrous acid                      d) Nitric acid