CHEMISTRY

1.In the reaction xPb(NO3)2 → yPbO + zNO2+ O2 x,y,z are:

a)1, 1, 2

b) 1, 2, 4

c)4, 2, 2

d) 2, 2, 4

2. Chemical reaction Na+ Cl2 is an example of:

a)Displacement Reaction

b)Decomposition Reaction

c) Combination Reaction

d) Double displacement reaction

3. When the dilute hydrochloric acid is added to iron filings:

a) hydrogen gas and ferric chloride are produced

b) no reaction takes place

c) chlorine gas and ferric hydroxide are formed

d) iron salt and water are produced

4. which of the following statements about the given reaction are correct?

Fe +4H2O → Fe3O4(s) Fe3O4(s) +4H2(g)

1. Iron metal is getting oxidized
2. Water is getting reduced
3. Water is acting as reducing agent
4. Water is acting as oxidizing agent
5. (i),(ii),(iii)
6. (iii),(iv)
7. (i),(ii),(iv)
8. (ii),(iv)

5. If pH of the solution is equal to zero then solution will be:

a) Acid

b)Neutral

c)None of these

d) Basic

6. A Solution turns red litmus blue, its pH is likely to be:

a) 7

b)10

c)4

d) 2

7. when CO2 is passed through lime water it turns milky. The milkiness is due to the formation of:

a)CO2

b) CaCO3

c) Ca(OH)2

d)H2O

8. When sodium reacts with cold water, then the product formed will be :

a)NaOH

b)Na2O

c) all of these

d)Na2Co3

9. Which of the following properties is not a characteristic of metals?

a)Metallic Lusture

b) Hardness

c)High density

d) Low melting point

10. Reactivity of Zinc is \_\_\_\_than hydrogen

a)more

b)less

c)equal

d) none of these

11.which of the following metals react vigorously with oxygen?

a) Magnesium

b)zinc

c)sodium

d)copper

12. Zn + H2O(Steam)→ A+B

a)K

b)Na

c)Zn

d)Ag

13. Which of the following belongs to homologous series of alkynes?  
C6H6, C2H6, C2H4, C3H4.  
(a) C6H6  
(b) C2H4  
(C) C2H6  
(d) C3H4

14. A hydrocarbon has four carbon atoms. Give its molecular formula if it is an alkene.  
(a) C4H10  
(b) C4H8  
(C) C4H6  
(d) C4H4

**15.**The self linkage property (catenation) is maximum in  
(a) carbon  
(b) silicon  
(c) sulphur  
(d) phosphorus

16.  Up to which element, the Law of Octaves was found applicable?  
(a) Oxygen  
(b) Calcium  
(c) Cobalt  
(d) Potassium

17.  In Mendeleev’s Periodic Table, gaps were left for the elements to be discovered later. Which of the following elements found a place in the Periodic Table later?  
(a) Chlorine  
(b) Silicon  
(c) Oxygen  
(d) Germanium

18.  The arrangement of elements in the Modem Periodic Table is based on their  
(a) increasing atomic mass in the period  
(b) increasing atomic number in the horizontal rows  
(c) increasing atomic number in the vertical columns  
(d) increasing atomic mass in the group

19. Element ‘X’ forms a chloride with the formula XCl2, which is a solid with high melting point. X would most likely be in the same group of the periodic table as:  
(a) Si  
(b) Mg  
(c) Al  
(d) Na

20. Pick out the chemically most reactive elements from the given triads.  
Li, Na, K F, Cl, Br  
(a) Li and F  
(b) Li and Br  
(c) K and F  
(d) K and Br

21.  Magnesium ribbon is rubbed before burning because it has a coating of  
(a) basic magnesium carbonate  
(b) basic magnesium oxide  
(c) basic magnesium sulphide  
(d) basic magnesium chloride

22. Three beakers labelled as A, B and C each containing 25 ml of water were taken. A small amount of NaOH, anhydrous CuSO4 and NaCl were added to the beakers A, B and C respectively. It was observed that there was an increase in the temperature of the solution contained in beakers A and B, whereas in case of beaker C, the temperature of the solution falls. Which one of the following statement(s) is (are) correct?  
(i) In beakers A and B, exothermic process has occurred.

(ii) In beakers A and B, endothermic process has occuBftd.  
(iii) In beaker C exothermic process has occurred.  
(iv) In beaker C endothermic process has occurred.  
(a) (i) only  
(b) (ii) only  
(c) (i) and (iv)  
(d) (iv), (ii) and (iii)

23.  Pb + CuCl2 → PbCl2 + Cu  
The above reaction is an example of:  
(a) combination  
(b) double displacement  
(c) decomposition  
(d) single displacement

24. What happens when a solution of an acid is mixed with a solution of a base in a test tube?  
(i) Temperature of the solution decreases  
(ii) Temperature of the solution increases  
(in) Temperature of the solution remains the same  
(iv) Salt formation takes place  
(a) (i) and (iv)  
(b) (i) and (iii)  
(c) (ii) only  
(d) (ii) and (iv)

25. Aluminium is used for making cooking utensils. Which of the following properties of aluminium are responsible for the same?  
(i) Good thermal conductivity  
(ii) Good electrical conductivity  
(iii) Ductility  
(iv) High melting point  
(a) (i) and (ii)  
(b) (i) and (iii)  
(c) (ii) and (iii)  
(d) (i) and (iv)