P BLOCK ELEMENTS

1) Which one of the halogen acids is a liquid

1) HBr 2) HCl 3) HI 4) HF

2) The one which does not form pentachloride is

1) Phosphorous 2) Nitrogen 3) Arsenic 4) Antimony

3) Colour of iodine solution is disappeared by shaking it with aqueous solution of

1) Na_2S 2) H_2SO_4 3) $Na_2S_2O_3$ 4) Na_2SO_4

4) A quick supply of Cl_2 gas may be made by reacting crystals of $KMnO_4$ with a concentrated solution of

1) Bleaching powder 2) Sodium chloride 3) Hydrochloric acid 4) Potassium chloride

5) Which is the most volatile compound

1) HI 2) HCl 3) HF 4) HBr

6) Nitrogen is relatively inert element because

1) Dissociation energy of its molecule is fairly large

2) Its atom has relatively stable electronic configuration

3) Its electronegativity is fairly high

4) It has smaller atomic radius

7) Phosgene is the common name of

1) Phosphine 2) Carbonyl chloride

3) Phosphorous oxychloride 4) Phosphorous trichloride

8) Bad conductor of electricity is

1) H_2F_2 2) HBr 3) HI 4) HCl

9) When Cl_2 gas is passed through hot and concentrated solution of KOH, following compound is formed

1) KCl 2) $KClO_2$ 3) $KClO_4$ 4) $KClO_3$

10) A solution containing NH_4Cl and $NaNO_2$ on boiling produces

1) Nitrogen peroxide 2) Nitrogen 3) Nitrous oxide 4) Ammonia

11) Which compound of lead is generally used in white paints?

1)PbS 2) $PbCO_3.Pb(OH)_2$ 3) PbO_2 4) $PbCl_2$

12) Which of the following has greatest reducing power?

1) HCl 2) HBr 3) HF 4) HI

13) When KBr is treated with concentrated H_2SO_4 reddish brown gas evolved, gas is

1) HBr 2) Bromine

3) Mixture of bromine and HBr 4) None of these

14) Which of the following is obtained when N_2 reacts with calcium carbide?

1) Calcium cyanate 2) Calcium carbonate 3) Calcium cyanamide 4) Calcium acetate

15) Strongest hydrogen bonding is shown by

1) Ammonia 2) Hydrogen fluoride

3) Water 4) Hydrogen sulphide

16) Which element has maximum number of isotopes?

1) Carbon 2) Lead 3) Tin 4) Hydrogen

17) Nitric acid converts iodine into

1) Iodine nitrate 2) Hydroiodic acid 3) Iodic acid 4) Iodine pentaoxide

18) In the manufacture of bromine from sea water, the mother liquor containing bromides is treated with

1) SO_2 2) CO_2 3) I_2 4) Cl_2

19) Which one of the following substances is used in the laboratory for fast drying of neutral gases?

1) Na_3PO_4 2) Phosphorous pentoxide

3) Anhydrous calcium chloride 4) Active charcoal

20) Bromine is liberated when an aqueous solution of potassium bromide is treated with

1) I_2 2) dil. H_2SO_4 3) Cl_2 4) SO_2

21) Which of the following halides group 15 element does not exist?

1) NCl_3 2) $BiCl_3$ 3) PCl_5 4) $BiCl_5$

22) When chlorine water is exposed to sunlight, O_2 is liberated. Hence,

1) Hydrogen has little affinity to O_2

2) Hydrogen has more affinity to O_2

3) It is a reducing agent

4) Hydrogen has more affinity to Cl_2

23) Which of the following forms of phosphorous is most stable?

1) Red
2) Black
3) White
4) All are equally stable

24) The correct order of thermal stability of hydrogen halides (H – X) is

1) HF > HCl > HBr > HI
2) HI > HCl < HF < HBr
3) HCl < HF < HBr < HI
4) HI > HBr > HCl > HF

25) The electrolysis of a certain liquid resulted in the formation of hydrogen at the cathode and chlorine at the anode. The liquid is

1) Pure water
2) NaCl solution in water
3) $CuCl_2$ solution in water
4) H_2SO_4 solution

26) Elements of which of the following groups will form anions most readily?

1) Alkali metals
2) Nitrogen group
3) Halogens
4) Oxygen group

27) Which of the following element forms $p_\pi - d_\pi$ bonding in its oxide?

1) Lithium
2) Nitrogen
3) Boron
4) Sulphur

28) When cold NaOH reacts with Cl_2 which of the following is formed

1) $NaClO_2$
2) NaClO
3) $NaClO_3$
4) None of these

29) H_3PO_2 is the molecular formula of an acid of phosphorous. Its name and basicity respectively are

1) Hypo phosphoric acid and two
2) Hypo phosphorous acid and two
3) Phosphorous acid and two
4) Hypo phosphorous acid and one

30) When I_2 is dissolved in CCl_4, the colour that results is

1) Brown 2) colourless 3) Violet 4) Bluish green

31) Which of the following is formed when phosphoric acid is heated to 600°C ?

1) PH_3 and P_2 2) P_2O_5 and H_2O 3) $H_4P_2O_7O_5$ 4) HPO_3

32) Which of the following gives nitrogen on heating?

1) $NaNO_2$ 2) NH_4NO_2 3) Ba $(NO_2)_2$ 4) $AgNO_2$

33) Which of the following hydrogen halides has the highest boiling point?

1) HBr 2) HF 3) HI 4) HCl

34) Oleum is a solution of

1) NO_2 in HNO_3 2) SO_3 in H_2SO_4 3) SO_2 on H_2SO_4 4) NO in HNO_4

35) The solubility of iodine in water increases in the presence of

1) Sodium hydroxide 2) Chloroform 3) Potassium iodide 4) Alcohol

36) Which of the following is both oxidizing and reducing agent?

1) HNO_3 2) HCl 3) HNO_2 4) H_2SO_4

37) A gas reacts with CaO, but not with $NaHCO_3$. The gas is

1) Cl_2 2) N_2 3) CO_2 4) O_2

38) Which of the following hydride is most acidic?

1) H_2O 2) H_2Se 3) H_2Te 4) H_2S

39) White enamel of our teeth is

1) $CaCl_2$ 2) CaF_2 3) $Ca_3(PO_4)_2$ 4) $CaBr_2$

40) Oxygen and sulphur have same

1) Outer electronic configuration 2) Electron affinity

3) Electronic configuration 4) Atomic size

41) When chlorine is passed over dry slaked lime at room temperature, the main reaction product is

1) $Ca(OCl_2)_2$ 2) $Ca(ClO_2)_2$ 3) $CaOCl_2$ 4) $CaCl_2$

42) Which of the following will not occur?

1) $CuO + H_2 \rightarrow Cu + H_2O$ 2) $Cu + 2AgNO_3 \rightarrow Cu(NO_3)_2 + 2Ag$

3) $2KBr + I_2 \rightarrow 2KI + Br_2$ 4) $Fe + H_2SO_4 \rightarrow FeSO_4 + H_2$

43) Which of the following processes does not involve a catalyst?

1) Haber's process 2) Thermite process

44) The element which forms oxides in all oxidation state +I to +V is

1) P 2) N 3) As 4) Sb

45) Which hydrogen compound of nitrogen acts as acid?

1) N_2H_4 2) NH_3 3) HN_3 4) None of these

46) When ammonia is passed over heated CuO, it is oxidized to

1) NO_2 2) N_2 3) N_2O 4)HNO_2

47) The least active halogen with hydrogen is

1) I 2) Br 3) Cl 4) F

48) Basicity of orthophosphoric acid is

1) 1 2) 2 3) 3 4) 5

49) A solution of HCl in water is good conductor while gaseous hydrogen chloride is not. This is due to the reason that

1) HCl in water ionises

2) Water is a good conductor of electricity

3) Gas cannot conduct electricity but water can

4) None of these

50) Which one of the following nitrogen oxides is the anhydride of nitrous acid?

1) N_2O 2) NO_2 3) N_2O_5 4) N_2O_3