

CHART - 6 > Select the correct answer

- Liquid-liquid homogenous mixtures are separated by _____. [evaporation/separating funnel/fractional distillation]
- Decomposition of ammonium chloride by heat to give ammonia and chlorine is an example of _____. [thermal decomposition/thermal dissociation/catalytic reaction]
- The valency of copper in CuCl_2 is _____. [$1^+/2^+/3^+$]
- The law which relates between the pressure of a gas and the volume occupied by it, temperature remaining constant is _____. [Charles's law/Boyle's law/Lussac's law]
- The temperature _____ is called absolute zero. [$273\text{K}/0^\circ\text{C}/-273^\circ\text{C}$]
- Oxygen in presence of U.V. light gives two _____. This combines with _____ to give ozone. [oxygen atoms/oxygen molecule/two oxygen molecules]
- Hydrogen and carbon monoxide are examples of _____ gases while chlorine and oxygen are examples of _____ gases. [non-combustible/combustible]
- An increase in pressure on the surface of water causes _____ in the solubility of the gas dissolved in water. [increase/decrease/no change]
- _____ is an example of an efflorescent salt, while _____ an example of a deliquescent salt. [lead chloride/washing soda/iron [III] chloride]
- If an element 'X' has atomic number 18, then its valency is _____. [$+1/-1/0$]
- The maximum number of electrons in any shell of an atom is represented by $2n^2$. The maximum number of electrons in the M shell is _____. [$2/32/18/8$]
- Isotopes of chlorine have the same _____, but different number of _____. [atomic number/mass number/neutrons/protons/electrons]
- An element 'Y' has atomic number 20. It finds position in period _____ [$2/3/4$] and group _____. [$1/2/3$].
- The basis of classification of elements by Newland was based on arrangement of elements in increasing order of _____ [atomic number/atomic weights] in series of _____. [$6/7/8$].
- The period-1 contains _____ elements, and periods 2 and 3 _____ elements each. There are _____ horizontal rows called periods, and _____ vertical columns called groups. An element in period-3 will have _____ electron shells or orbits and in group VA will have _____ valence electrons in its outermost shell. [$2/3/5/7/8/10/18$]
- Period-2 is a _____ [short/long] period containing _____ [six/seven/eight] elements of which, carbon (at. no. 6) is placed in group _____ [$14 [\text{IVA}]/15 [\text{VA}]/16 [\text{VIA}]$], nitrogen (at. no. 7) is placed in group _____ [$14/15/16$], oxygen (at. no. 8) is placed in group _____ [$14/15/16/17$], sulphur (at. no. 16) is placed in group _____ [$14/15/16/17$] & chlorine (at. no. 17) is placed in group _____ [$14/15/16/17$].
- On moving from left to right in a period, the number of electron shells _____ [remain same/increase by one], the number of valence electrons _____ [remain same/increase by one] and the elements show a transition from _____ [Non-metallic to metallic/metallic to non-metallic] character. On moving down a group, the valence electrons _____ [remain same/increase by one] and the elements show a transition from _____ [non-metallic to metallic/metallic to non-metallic] character.
- A non-renewable source of energy fuel used instead of fossil fuel to reduce greenhouse gas pollution is _____. [hydrogen energy/biogas/C.N.G.]

19. From the elements of group 15 [VA] _____ & _____ are non-metals and highly electronegative. The electronegativity _____ on moving down the group and so also the non-metallic character. [nitrogen/phosphorus/arsenic/antimony/increases/ decreases]
20. Hydrogen gas is lighter than air and collected in the laboratory by _____. [upward displacement of air/downward displacement of water/downward displacement of air]
21. Sulphur dioxide gas turns potassium permanganate solution from _____ to colourless and potassium dichromate from _____ to _____. [orange/green/pink/blue]
22. Sodium chloride imparts a _____ colour on application of the flame test for identification of the metallic radical in the salt, calcium chloride a _____ colour and potassium chloride a _____ colour. [lilac/brick red/golden yellow]
23. _____ [hydrogen sulphide/nitrogen dioxide] turns lead acetate paper silvery black.
24. Heat on _____ [zinc nitrate/lead nitrate/copper nitrate] gives a black residue, a coloured _____ [acidic/basic/neutral] gas and a colourless _____ [acidic/basic/neutral] gas.
25. When a solid changes into a liquid there is decrease in _____ and increase in _____. [inter-particle attraction / inter-particle space].
26. The law of Conservation of Mass will not be strictly valid, unless - mass & energy are considered _____ [separately / together].
27. All temperatures on the Kelvin scale are in _____ figures. [negative / positive].
28. -273°C is equal to _____ [273 K / 0 K].
29. Colloidal solutions are _____ [homogeneous / heterogeneous] mixtures in which particles are not visible to the naked eye.
30. A heterogeneous immiscible liquid mixture can be separated by _____ [distillation / fractional distillation / separating funnel].
31. The valency of a metal is the number of electrons [gained / lost] per atom of the metal.
32. A chemical equation _____ [tells / does not tell] about the concentration of both reactants & products.
33. The formula of aluminium sulphide is _____ [AlS / Al_3S_2 / Al_2S_3].
34. Loss or gain of energy is observed in a _____ [physical / chemical] change.
35. Thermal _____ [decomposition / dissociation] is a reversible reaction.
36. In the reaction: $2\text{FeCl}_3 + \text{H}_2\text{S} \rightarrow 2\text{FeCl}_2 + 2\text{HCl} + \text{S}$ the reduced product is _____ [HCl / FeCl_2 / S].
37. The metal which has a density more than water is _____ [Na / Ca / K].
38. The metal which is above hydrogen in the activity series, but does not react with water is _____ [Cu / Pb / Hg].
40. Ozone layer prevents harmful _____ from reaching the earth's surface. [U.V. rays/ gamma rays / electromagnetic radiation].
41. If an element has 6 electrons in its outermost 'L' shell its valency is _____ [$+2$ / -2 / $+1$ / -1].
42. _____ elements have atoms in which all shells are complete, except the outermost shell which is incomplete [bridge / normal / inner transition].
43. In Bosch process for the manufacture of hydrogen, the gas carbon dioxide is recovered by dissolving it in _____ [caustic potash soln. / ammoniacal cuprous chloride / carbon disulphide].
44. In the manufacture of hydrogen, the reaction of water gas with excess steam in presence of a catalyst is an _____ [exothermic / endothermic] reaction.