# CHEMICAL EQUATIONS

**1.** The chemical formula of lead sulphate is
(a) $Pb_2SO_4$ (b) $Pb(SO_4)_2$ (c) $PbSO_4$ (d) $Pb_2(SO_4)_3$

**2.** Which information is not conveyed by a balanced chemical equation?
(a) Physical states of reactants and products
(b) Symbols and formulae of all the substances involved in a particular reaction
(c) Number of atoms/molecules of the reactants and products formed
(d) Whether a particular reaction is actually feasible or not

**3.** Chemically rust is
(a) hydrated ferrous oxide (b) only ferric oxide (c) hydrated ferric oxide (d) none of these

**4.** Both $CO_2$ and $H_2$ gases are
(a) heavier than air (b) colourless (c) acidic in nature (d) soluble in water

**5.** Which of the following gases can be used for storage of fresh sampel of an oil for a long time?
(a) Carbon dioxide or oxygen (b) Nitrogen or helium (c) Helium or oxygen (d) Nitrogen or oxygen

**6.** The electrolytic decomposition of water gives $H_2$ and $O_2$ in the ratio of
(a) 1 : 2 by volume (b) 2 : 1 by volume (c) 8 : 1 by mass (d) 1 : 2 by mass

**7.** In the decomposition of lead (II) nitrate to give lead (II) oxide, nitrogen dioxide and oxygen gas, the coefficient of nitrogen dioxide ( the balanced equation) is
(a) 1 (b) 2 (c) 3 (d) 4

**8.** Fatty foods become rancid due to the process of
(a) oxidation (b) corrosion (c) reduction (d) hydrogenation

**9.** We store silver chloride in a dark coloured bottle because it is
(a) a white solid (b) undergoes redoc reaction (c) to avoid action by sunlight (d) none of the above

**10.** Silver article turns black when kept in the open for a few days due to formation of
(a) $H_2S$ (b) AgS (c) $AgSO_4$ (d) $Ag_2S$

**11.** When crystals of lead nitrate are heated strongly in a dry test tube
(a) crystals immediately melt (b) a brown residue is left
(c) white fumes appear in the tube (d) a yellow residue is left

**12.** Dilute hydrochloric acid is added to granulated zinc taken in a test tube. The following observations are recorded. Point out the correct c servation.
(a) The surface of metal becomes shining (b) The reaction mixture turns milky
(c) Odour of a pungent smelling gas is recorded (d) A colourless and odourless gas is evolved

**13.** When carbon dioxide is passed through lime water,
(a) calcium hydroxide is formed (b) white precipitate of CaO is formed
(c) lime water turns milky (d) colour of lime water disappears.

**14.** When a magnesium ribbon is burnt in air, the ash formed is
(a) black (b) white (c) yellow (d) pink

**15.** In which of the following, heat energy will be evolved?
(a) Electrolysis of water (b) Dissolution of NH4Cl in water
(c) Burning of L.P.G. (d) Decomposition of AgBr in the presence of sunlight

**16.** Rancidity can be prevented by
(a) adding antioxidants (b) storing food away from light
(c) keeping food in refrigerator (d) all of these

**17.** The reaction of $H_2$ gas with oxygen gas to form water is an example of
(a) combination reaction (b) redox reaction (c) exothermic reaction (d) all of these reactions

**18.** The reaction in which two compound exchange their ions to form two new compounds is called
(a) displacement reaction (b) combination reaction
(c) double displacement reaction (d) redox reaction

**19.** On immersing an iron nail in $CuSO_4$ solution for few minutes, you will observe
(a) no reaction takes place
(b) the colour of solution fades away
(c) the surface of iron nails acquire a black coating
(d) the colour of solution changes to green

**20.** An element X on exposure to moist air turns reddish-brown and a new compound Y is formed. The substance X and Y are
(a) X = Fe, Y = $Fe_2O_3$
(b) X = Ag, Y = $Ag_2S$
(c) X = Cu, Y = CuO
(d) X = Al, Y = $Al_2O_3$