

# SURAJ SCHOOL

REWARI

A vibrant, circular graphic with a wooden texture. At the top center is a glowing yellow lightbulb with radiating lines. To the right is a red and yellow striped beach umbrella. Below the umbrella are two colorful flip-flops. At the bottom center is a pair of yellow sunglasses reflecting a tropical scene. To the left is a red and white striped beach ball. The background is decorated with various icons: a blue atomic model, a molecular structure, a DNA helix, a microscope, a magnifying glass, a calendar, a pencil, a lightbulb, a gear, a brain, a hand holding a pencil, a computer keyboard, a bar chart, a calculator, a pencil case, and laboratory glassware. The text 'Holiday Homework' is written in a large, bold, red font with a white outline, centered on the wooden background.

## Holiday Homework

प्रकाशमय कल के लिए

For more info contact:  
+91 9992306133

Follow Us On:



For more info visit:  
[surajschoolrewari.com](http://surajschoolrewari.com)



# Class 10<sup>th</sup>, Chemistry

1. Which one of the following is acidic?  
(a) Lemon juice (b) Tomatoes (c) Milk (d) All
2. Which one of the following will turn red litmus blue?  
(a) Vinegar (b) Baking soda solution (c) Lemon juice (d) Soft drinks
3. Which one of the following will turn blue litmus red?  
(a) Vinegar (b) Lime water (c) Baking soda solution (d) Washing soda solution
4. Methyl orange is  
(a) Pink in acidic medium, yellow in basic medium  
(b) Yellow in acidic medium, pink in basic medium  
(c) Colourless in acidic medium, pink in basic medium  
(d) Pink in acidic medium, colourless in basic medium.
5. Lime water is  
(a) CaO (b) Ca(OH)<sub>2</sub> (c) CaCO<sub>3</sub> (d) CaCl<sub>2</sub>
6. The nature of calcium phosphate is present in tooth enamel is  
(a) Basic (b) Amphoteric (c) Acidic (d) Neutral
7. Which of the following salts has no water of crystallization?  
(a) Blue vitriol (b) Washing soda (c) Baking soda (d) Gypsum
8. The function of quick lime in soda lime mixture is to  
(a) Absorb moisture present in soda lime  
(b) Increase the efficiency of soda lime  
(c) Increase the pH of soda lime  
(d) Take part in reaction with NaOH
9. The Ph of a solution of HCL is 4. This shows that the molarity of the solution is

(a) 4.0M (b) 0.4M (c) 0.0001M (d) 0.001M

**10.** The difference of molecules of water in gypsum and PoP is

(a)  $5/2$  (b) 2b (c)  $3/2$  (d)  $1/2$

**11.** Which of the following does not form an acidic salt?

(a) Phosphoric acid (b) Carbonic acid (c) Hydrochloric acid (d) Sulphuric acid

**12.** The chemical formula of caustic potash is

(a) NaOH (b)  $\text{Ca}(\text{OH})_2$  (c)  $\text{NH}_4\text{OH}$  (D) KOH

Chemical reactions and equations:-

**1.** The chemical formula of lead sulphate is

- (a)  $\text{Pb}_2\text{SO}_4$
- (b)  $\text{Pb}(\text{SO}_4)_2$
- (c)  $\text{PbSO}_4$
- (d)  $\text{Pb}_2(\text{SO}_4)_3$

**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  $\text{CO}_2$  and  $\text{H}_2$  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 sample 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  $\text{H}_2$  and  $\text{O}_2$  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 (in 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 redox 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)  $\text{H}_2\text{S}$

(b)  $\text{AgS}$

(c)  $\text{AgSO}_4$

(d)  $\text{Ag}_2\text{S}$

**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 observation.

(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  $\text{CaO}$  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  $\text{NH}_4\text{Cl}$  in water
- (c) Burning of L.P.G.
- (d) Decomposition of  $\text{AgBr}$  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  $\text{H}_2$  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  $\text{CuSO}_4$  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)  $X = \text{Fe}$ ,  $Y = \text{Fe}_2\text{O}_3$
- (b)  $X = \text{Ag}$ ,  $Y = \text{Ag}_2\text{S}$
- (c)  $X = \text{Cu}$ ,  $Y = \text{CuO}$
- (d)  $X = \text{Al}$ ,  $Y = \text{Al}_2\text{O}_3$

## CHAPTER METAL AND NON METAL:-

- 1.** Which of the following metals is present in the anode mud during the electrolytic refining of copper?  
(a) Sodium (b) Aluminium (c) Gold (d) Iron
- 2.** An element reacts with oxygen to give a compound with a high melting point. The compound is soluble in water. The element is likely to be  
(a) calcium (b) carbon (c) iron (d) silicon
- 3.** The second most abundant metal in the earth's crust is  
(a) oxygen (b) silicon (c) aluminium (d) iron
- 4.** An alloy of Zn and Cu is dissolved in dil.  $\text{HCl}$ . Hydrogen gas is evolved. In this evolution of gas  
(a) only zinc reacts with dil.  $\text{HCl}$  (b) only copper reacts with dil.  $\text{HCl}$

(c) both zinc and copper react with dil. HCl (d) only copper reacts with water

5. A greenish coating develops on copper utensils due to formation of

(a)  $\text{CuCO}_3$  (b)  $\text{Cu(OH)}_2$  (c)  $\text{Cu(OH)}_2 \cdot \text{CuCO}_3$  (d)  $\text{CuO}$

6. Rusting of iron takes place in

(a) ordinary water (b) distilled water

(c) both ordinary and distilled water (d) none of the above

7. The bronze medals are made up of

(a) Cu and Zn (b) Zn and Ni (c) Cu and Sn (d) Cu, Zn, Tn

8. Silver articles become black on prolonged exposure to air. This is due to the formation of

(a)  $\text{Ag}_2\text{O}$  (b)  $\text{Ag}_2\text{S}$  (c)  $\text{AgCN}$  (d)  $\text{Ag}_2\text{O}$  and  $\text{Ag}_2\text{S}$

Page 2

9. During smelting, an additional substance is added which combines with impurities to form a fusible product known as

(a) slag (b) mud (c) gangue (d) flux

10. A student placed an iron nail in copper sulphate solution. He observed the reddish brown coating on the iron nail which is

(a) soft and dull (b) hard and flaking (c) smooth and shining (d) rough and granular

11. Which among the following alloys contain non-metal as one of its constituents?

(a) Brass (b) Amalgam (c) Gun metal (d) None of these

12. An aluminium strip is kept immersed in freshly prepared ferrous sulphate solution taken in a test tube, the change observed is that

(a) Green solution slowly turns brown

(b) Lower end of test tube become slightly warm

(c) A colourless gas with the smell of burning sulphur is observed



(d) Light green solution changes to blue.

