St Crispin's Sr. Sec. School, Gurugram

Holiday Home Work

Subject---Science

Class--- X A,B,C

Answer the following questions in Science register:

Ch 1: Chemical Equations and Reactions:

Q 1 Complete the following sentences by inserting the scientific terms: ----

(a)A chemical equation is _____ so that the number of atoms are equal on both the sides.
(b)In a _____ two or more substances combine to form a new single substance.
(c) Iron displaces copper from _____ solution.
(d) A type of chemical process in which a substance gains oxygen or losses hydrogen is known as _____.

Q 2 Match the **Column II** and **III** with that **of Column I** by writing their numbers……..

Column I	Column II	Column III
1. Decomposition of $FeSO_4$	(a) solid silver	(i)Gases SO_2 and SO_3
2. Decomposition of $Pb(NO_3)_2$	(b) solid silver	(ii)Gases NO_2 and O_2
3. Decomposition of $CaCO_3$	(c) Solid Fe_2O_3 (grey colored)	(iii)Chlorine gas
4 Decomposition of AgCl	(d)Solid PbO (yellow colored)	(iv)Bromine gas
5 Decomposition of AgBr	(e)Solid CaO	(v)CO_2 gas

Q 3 What are Exothermic and Endothermic reactions? Give examples.

Q 4 Give differences between displacement and double displacement reactions with one example each.

Q 5 Write a balanced chemical equations for the following reactions and identify the type of reaction in each case.:

a) Hydrochloric acid reacts with zinc metal to form zinc chloride and hydrogen gas.

b) Carbon dioxide reacts with slaked lime to form calcium carbonate and water.
a) Carbon reacts with zinc oxide forming zinc and carbon monoxide.

Q 6 Explain rancidity with an example. List two different ways that are used to prevent rancidity.

Q 7 On heating ferrous sulphate, what are the observations about the colour change and nature of gases formed? Write chemical equation involved.

Q 8 Explain corrosion with an example. List four different ways that are used to prevent corrosion.

Ch 6—Life Processes

1 List three events that occur during the process of photosynthesis. Explain the role of stomata in the process.

2 How water and minerals are transported in plants?

3 What is Tropic movement? Explain with the help of example.

4 Describe an experiment to show that light is necessary for photosynthesis.

5 Differentiate between aerobic and anaerobic respiration.

6 How do guard cells regulate the opening and closing of stomatal pore ?

7 Write functions of the following organs in human body : Teeth, tongue, pancreas, small intestine, large intestine, rectum .

8 Name the largest gland in human body and write its function.

9 After a vigorous exercise, you may experience cramps in your leg muscles. Why does this happen?

10 What are the functional and structural difference between the four chambers of heart?

11 The green plants are kept separately in oxygen free containers, one in the dark and other in the continuous light. Which one will live longer? Give reasons.

12 Why do fishes die when taken out of water?

13 Draw a diagram of front view of human heart and label any six parts.

14 From a 220 v line. Determine the power of motor and the energy consumed in 2 h.

15 Give an example of food chain and state the different trophic levels in it.

16 What is ozone and how does it affect any ecosystem?

17 Give reasons:

a) Veins have thin walls as compared to arteries?
b) Plants have low energy needs as compared to animals.
c) Small intestine in herbivores longer than in carnivores.
d) Fine hair and mucus are present in the nasal passage
e) Rings of cartilage are present in the throat
f) Mucus is secreted along with hydrochloric acid in the stomach
g) Lungs always contain a residual volume of air

18) Name the following

a) The three carbon molecule that is formed due to break-down of glucose during respiration.
b) The nitrogeneous waste that is removed from the blood in our kidneys.
c) The respiratory pigment found in the human beings
d) Two organisms that obtain food through parasitic nutritive strategy.
e) Two enzymes present in pancreatic juice and give their functions
f) The energy currency in the living organism.
g) A common nutrient that is absorbed in the small intestine and reabsorbed by the kidney tubules.