Chemistry Test

Ch- 5, 7

Full Marks: 17+3
Pass Marks: 39
Time Duration: 1 hour 30 mins

1> Define

2 × 6 = 12

a) Chemical equation
b) Chemical reaction
c) Law of conservation of mass
d) Acid Rain
e) Smog
f) Rusting

2> Name

1 × 6 = 6

a) An oxide of carbon containing oxygen
b) ~~Iron~~ One substance which undergo rapid oxidation.
c) A metal highly resistant to rusting
d) Reason for Increase in temperature of the Earth.
e) Gas having a rotten egg smell
f) Gas evolved when Sodium Carbonate reacts with dilute hydrochloric acid

3> Multiple Choice Questions

1 × 6 = 6

a) Copper Carbonate when heated, turns:
(i) Blue (ii) Green (iii) Black (iv) Yellow.

b) When lead acetate solution is added to Potassium iodide solution, a percipitation formed which is
(i) Red (ii) Yellow (iii) White (iv) Black.

c) Helps in Protein synthesis in Plants-
(i) Oxygen (ii) Carbon dioxide (iv) Nitrogen (iv) Water Vapour

d) What happens when Calcium is heated and then tested with moist red litmus paper
(i) It remains unchanged in color (ii) Red litmus turns blue (iii) Blue litmus turns red.

e) When $KClO_3$ is heated ____ gas is evolved
(i) O_2 (ii) Cl_2 (iii) O_3 (iv) ClO_2

f) Air and water are two substances from which ____ can be obtained on a large scale.
(i) Hydrogen (ii) Hydroxide (iii) Oxygen (iv) Oxide of hydrogen

4> Complete and balance the following chemical equations: 1×2 = 2

(i) $KNO_3 \xrightarrow{heat} KNO_2 +$ _____

(ii) $CaO + H_2O \longrightarrow$ _____

5> Write word equations for the following skeletal equations: 2×2 = 4

(i) $Na_2CO_3 + 2HCl \longrightarrow 2NaCl + H_2O + CO_2$

(ii) $AgBr \longrightarrow Ag + Br.$

2×6 = 12

6> Write your observations for the following chemical reactions and name the products formed:

a) When manganese dioxide is added to potassium chlorate and heated

b) When sugar is heated.

c) When carbon monoxide is combined with oxygen.

d) When water is added to quick lime.

e) When an aqueous solution of sodium chloride is mixed with an aqueous solution of silver nitrate.

f) When potassium iodide solution is added to lead acetate solution

7> Fill in the blanks 1×6 = 6

a) During a chemical reaction, transfer of _____ takes place.

b) In some chemical reactions, an insoluble ___ is formed when two solutions are mixed.

c) A new substance is formed during a _____ reaction.

d) _____ are substances causing pollution.

e) _____ is the most abundant element in the earth's crust.

f) _____ is a chemical change in which a substance combines with oxygen to release heat and light.

8> Name three types of oxidation process. In which of these, large amount of heat and light energy are produced? (2)

9> Why is potassium chlorate not used for laboratory preparation of oxygen? (2)

10> Give two examples of metallic and non-metallic oxides. (4)

11> What causes air pollution? Suggest four measures to prevent air pollution (5)

12> Why do you need to balance chemical equations? (2)

13> Differentiate between products and reactants (2)

14. (a) Taking hydrogen peroxide, how would you prepare oxygen in the laboratory? 3

(b) What is the role of manganese dioxide in the preparation of oxygen? 1

(c) Write the balanced chemical equation for the above chemical reaction. 2

(d) Why is hydrogen peroxide preferred in the preparation of oxygen gas? 2

(e) Why is oxygen collected by downward displacement of water? 1

(f) What happens when a glowing splinter is introduced in a jar containing oxygen? 1

(g) What happens when oxygen gas is passed through alkaline pyrogallol solution? 2