



FUSCO'S SCHOOL (ICSE)

Indiranagar, Bangalore

Half Yearly Examination 2016-17

Subject :Chemistry

Class: VII

Marks:80

SECTION- I [40 marks]

- I. Give one word for the following.** [7]
- Suspensions of fine particulate matter in the air.
 - The contamination of air by air pollutants.
 - This cycle maintains a constant level of oxygen in the air.
 - A mixture of iron or steel with silicates.
 - Noble gas that prevents the oxidation of filaments.
 - Bacteria present in root nodules of leguminous plants.
 - A mixture of 5% of CO_2 and 95% of O_2 .
- II. Define the following.** [8]
- Catalyst.
 - Global warming.
 - Fixation of nitrogen.
 - Acid rain.
- III. Match the following.** [6]
- | | |
|---------------------|---------------|
| a. Sulphur | azote |
| b. Phosphorous | bluish flame |
| c. Calcium | golden yellow |
| d. Sodium | acidic gas |
| e. Carbon-di –oxide | brick red |
| f. Nitrogen | white flame |
- IV. Derive the molecular formulae of the following compounds.** [6]
- Sodium sulphate.
 - Aluminium nitride.
 - Magnesium oxide.
 - Zinc chloride.
 - Calcium hydroxide.
 - Potassium carbonate.

V. Complete the following. [with balanced] [5]

- a. $\text{H}_2\text{O}_2 \longrightarrow \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$
b. $\text{NO} + \text{O}_2 \longrightarrow \underline{\hspace{2cm}}$
c. $\text{Mg} + \text{O}_2 \longrightarrow \underline{\hspace{2cm}}$
d. $\text{Fe} + \text{O}_2 \longrightarrow \underline{\hspace{2cm}}$
e. $\text{CaCO}_3 + \text{HCl} \longrightarrow \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

VI. Answer these in one or two sentences. [8]

- a. Define rust, write the conditions necessary for rusting.
b. Write any two tests for oxygen.
c. What are oxides?
d. List out any four preventive measures of air pollution.

SECTION- II [40 marks]

I. Choose the correct option. [8]

- a. Gases that are insoluble in water are collected by _____ (downward / upward) displacement.
b. _____ (oxygen cycle / carbon cycle) maintains the level of carbon-di- oxide.
c. _____ (krypton / radon) is used in photography.
d. A black colour powder _____ (MnO_2 / KMnO_4) acts as a catalyst in the preparation of oxygen.
e. _____ (lead / bromine) causes brain damage.
f. An example of green house gas _____. (CO / CO_2)
g. _____ (liqiud N_2 / dry ice) is used for storing human body tissues.
h. Oxygen was first prepared by _____ (KarleScheele /Antony lavosier).

II. The following questions are related to the laboratory preparation of carbon -di -oxide. [8]

- a. Why is calcium carbonate is preferred?
b. Why is CO_2 is not collected over water?
c. Mention any two tests for carbon- di -oxide.
d. Write any four uses of carbon-di- oxide.

III. Answer these following in brief.

[10]

- a. Write a short note on biological fixation of nitrogen in leguminous plants.
- b. Write any four preventive techniques of rusting.
- c. Why is hydrogen peroxide is preferred to potassium chlorate for the preparation of oxygen?
- d. Why is helium is used to fill weather balloons?
- e. Write the uses of O_2 and N_2 (two each).

IV. correct the following statements.

[6]

- a. Coal and wood should be used for cooking.
- b. Soluble acids are called alkalies.
- c. The process of coating of iron sheets with zinc is called tin plating.
- d. Carbon dioxide is insoluble in water.
- e. Radon is used to make sign boards.
- f. The content of water vapour in the air is called vapour density.

V. Give reasons for the following.

[8]

- a. Dilute sulphuric is not used instead of dil. HCl in the preparation of carbon –di- oxide.
- b. Cooking appliances coated with enamel.
- c. Nitrogen is used in food packaging industry.
- d. Why does lime water turns milky when carbon –di-oxide is passed through it?