3rd Term Worksheet [2018 – 19]

Subject – Chemistry

Class – VII

Name : **Sec. :**

Chapter – 4
[Atomic Structure]

Check Point: **[91]**

[A] Choose the appropriate word from the bracket and complete statements: [91]

1. Most non-metals are (bad/good) conductors of heat.
2. Metals are (softer/harder) than non-metals.
3. Melting points of most non-metals is (lower/higher) than that of metals.
4. (Metals/Non-metals) show lusture.
5. The property that allows the metals to be hammered into their sheets is called (ductility/malleability).

[B] Give one word for the following: [92]

1. Name a metal which is liquid at ordinary temperatures.

   _____

2. Name a non-metal which is shiny and conducts electricity well.

   _____

3. Name a non-metal that has high density.

   _____

4. Name a metal which is not ductile at ordinary temperatures.

   _____

5. Name two metals which are highly malleable and highly ductile.

   _____

[C] Answer the following questions: [96]

1. Why is aluminium used in making of aeroplanes?

   Ans. _____

2. Explain the use of chlorine in water purification plants.

   Ans. _____

3. Why is tincture iodine applied on wounds?

   Ans. _____

4. Why is helium filled in balloons?

Ans.

5. State one important use of gold.

Ans.

6. State two uses of copper.

Ans.

7. Give two uses of silver.

Ans.

[D] Answer the following questions: **[103]**

1. What is rusting? What are the ways to retard this process?

Ans.

2. Why does an aluminium vessel loose its shine so soon after use?

Ans. _____

_____

_____

_____

_____

_____

_____

_____

3. Name a common metal which highly resistant to rusting.

Ans. _____

_____

4. Which one of the following materials is most likely to be corroded?

a. a wooden plank b. a steel chair

c. an exposed iron rod d. an iron rod coated with oil

Ans- _____

_____

Keywords: **[103]**

Alloys: _____

Corrosion: _____

_____

Ductility: _____

Electroplating: _____

_____

Galvanizing: _____

Malleability: _____

_____

Metals: _____

_____

Metalloids: _____

_____

Non-metals: _____

Rusting: _____

_____

Exercise: **[104-106]**

[A] **Multiple Choice Questions:** [104]

(i) Metals are usually

(a) shiny (b) dull lustre

(c) bad conductor of electricity (d) none of these

(ii) A homogeneous mixture of metal with other metals or non-metals is called

(a) a metalloid (b) a compound

(c) an alloy (d) none of these

(iii) Which of the following metals is used aircrafts?

(a) silicon (b) copper

(c) aluminium (d) zinc

(iv) Which of the following non-metal is used in weather balloons?

(a) carbon (b) bromine

(c) hydrogen (d) helium

(v) Chemically, rust is _____ in nature.

(a) acidic (b) basic

(c) neutral (d) none of these

(vi) Rust is the hydrated oxide of _____.

(a) chlorine (b) aluminium

(c) iron (d) tungsten

[B] Fill in the blanks: [105]

1. _____ is the hardest known material.
2. Graphite is _____ conductor of electricity.
3. Zinc is _____ and non-ductile at _____ temperature.
4. Sodium and potassium are very _____ to cut.
5. Tungsten and antimony are examples of _____.

[C] Give two uses of each of the following: [105]

1. Aluminium : _____
2. Copper : _____
3. Bromine : _____
4. Iodine : _____
5. Germanium : _____

[D] Match the column A with the column B: [105]

	Column A		Column B
1.	Good conductors of heat	a.	Metalloids
2.	Share characteristics of metals and non-metals	b.	Rust
3.	Hydrated ferric oxide	c.	Non-metals
4.	Eating away of iron	d.	Metals
5.	Do not reflect light well	e.	Corrosion

[E] Answer the following questions: [105]

1. How do elements classify into metals and non-metals?

Ans- _____

2. Write any three important properties of metals and non-metals.

Ans-

3. List the uses of any two metals and non-metals.

Ans-

4. Differentiate between metals and non-metals.

Ans-

5. How will you prove that the given substance is a good conductor of electricity?

Ans-

6. What are metalloids? Give examples and write uses of any two metalloids.

Ans-

7. What is rusting? Write the word equation for the process.

Ans-

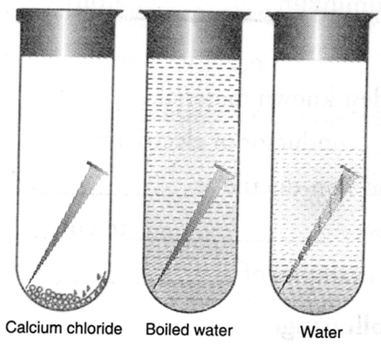
8. What are the methods used to prevent rusting?

Ans-

9. Explain the chemical nature of the rust.

Ans-

[F] Carefully observe the diagram and answer the following questions: [105]



1. What does the set up show?

Ans. _____

2. Why the test tube containing calcium chloride and iron nail does not rusted?

3. Which of these text tubes show the rusted iron nail and why?

Chapter – 7
[Air and Atmosphere]

Check Point: **[116]**

[A] Answer the following questions:

1. Who discovered oxygen?

Ans. _____

2. Name the most abundant element in the earth's crust.

Ans. _____

3. How would you prepare oxygen gas in laboratory?

Ans. _____

4. Describe physical and chemical properties of oxygen.

Ans. _____

5. List some important uses of oxygen.

Ans.

6. What is a catalyst? Give an example.

Ans.

7. What is oxyacctylene flame? Give its use.

Ans.

8. What is respiration?

Ans.

9. What is photosynthesis?

Ans.

10. What is the use of oxygen in hospitals?

Ans. _____

_____

_____

_____

_____

_____

_____

[B] Answer the following questions: [121]

1. Name five components of air.

Ans. _____

_____

_____

2. Write any two uses of carbon dioxide.

Ans. _____

_____

_____

_____

_____

_____

3. Write some uses of nitrogen.

Ans. _____

_____

_____

4. How nitrogen is balanced in air?

Ans. _____

_____

_____

_____

_____

5. List the inert gases.

Ans. _____

_____

_____

_____

Keywords: **[123]**

Acid rain: _____

Oxidation: _____

_____

Ignition temperature: _____

_____

Global warming: _____

_____

_____

Exercise: **[124-126]**

[A] Multiple Choice Questions: [124]

(i) On heating which of the following compound will give maximum amount of oxygen?

(a) HgO (b) KNO_3

(c) $KClO_3$ (d) $KMnO_4$

(ii) The catalyst among the following is

(a) MnO_2 (b) KNO_2

(c) $KMnO_4$ (d) $KClO_3$

(iii) A glowing splinter brought in a jar full of oxygen will

(a) stop glowing at once (b) burns into flames

(c) give out smoke (d) none of these

(iv) A gas which neither burns nor supports burning is

(a) oxygen (b) chlorine

(c) hydrogen (d) carbon dioxide

(v) The inert gas among the following is

(a) oxygen (b) hydrogen

(c) argon (d) carbon dioxide

(vi) In fire extinguishers, the gas used is

(a) oxygen (b) carbon dioxide

(c) nitrogen (d) water gas

(vii) During photosynthesis, the gas released is

(a) oxygen (b) carbon dioxide

(c) nitrogen (d) none of these

(viii) A catalyst

(a) changes rate of chemical reaction (b) reacts with the reactants

(c) do not react with the reactants (d) none of these

(ix) Harmful substances present in air are called

(a) pollutants (b) microbes

(c) noble gases (d) other constituents of air

[B] Fill in the blanks: [124-125]

1. Oxygen is prepared in the laboratory by heating _____.
2. For welding metals, the gases used are _____ and _____ or _____.
3. The amount of water vapour in the air is called _____.
4. The gas present in the largest amount in air is _____.
5. During photosynthesis _____gas is used up and _____ gas is formed.

[C] Give answer in one word: [125]

1. The most abundant element on earth

_____

2. The process of manufacturing ammonia from nitrogen gas.

_____

3. The major component of air that does not support burning.

_____

4. A gas required by plants for photosynthesis.

_____

5. A gas discovered by Priestley.

_____

[D] State whether the following statements are true or false: rewrite the false statements correctly:

1. Helium is lightest gas. _____
2. Nitrogen is slightly heavier than air. _____
3. Oxygen is the most abundant element on earth. _____
4. Carbon dioxide was first produced by Lord Raleigh. _____
5. Antoine Lavoisier discovered nitrogen. _____

[E] Match the column A with the column B: [125]

	Column A		**Column B**
1.	Catalyst	a.	Rusting of iron
2.	Slow oxidation	b.	Argon
3.	Mixture	c.	Manganese dioxide (MnO_2)
4.	Inert gas	d.	Air
5.	Dry ice	e.	Oxygen is released
6.	In photosynthesis	f.	Solid CO_2

[F] Complete these chemical equations: [125]

1. $2\ Mg + O_2 \rightarrow$ _____
2. $6CO_2 + 12H_2O \rightarrow C_6H_{12}O_6 + 6H_2O +$ _____

[G] Give reason for the following: [125]

1. Nitrogen gas is filled in electric bulbs and to store living cells and tissues.

_____

_____

_____

_____

_____

_____

_____

2. Carbon dioxide is used in fire extinguishers.

_____

_____

_____

_____

_____

_____

_____

3. When magnesium is burned in oxygen, the product formed becomes heavy.

_____

_____

_____

_____

_____

_____

_____

4. Clothes do not dry on a cloudy day.

[H] Answer the following questions: [125]

1. Describe a simple experiment to show that oxygen is needed for burning.

Ans-

2. What is photosynthesis?

Ans-

3. Explain how oxygen gas can be prepared in the laboratory using potassium chlorate.

Ans-

4. What is acid rain? What causes acid rain?

Ans.

5. Write the differences between combustion and rusting.

Ans.

6. What is corrosion? Write steps to prevent rusting.

Ans.

7. Which of the following substances, when present in air, causes air pollution?
Water vapour, carbon monoxide, lead, carbon dioxide, sulphate dioxide, CFCs, nitrogen, oxygen.

8. Describe how acid rain affects the Indian heritage. Give an example. Also explain government's initiatives towards the problem.