

Class: 7

Chemistry
Air and its constituents
Answer sheet

I. Name the following:

1. Calcium bisulphite
2. Acid rain
3. Sulphur dioxide
4. chlorofluorocarbons(CFC)
5. carbon monoxide
6. Ultraviolet radiations

II. Fill in the blanks:

1. Oxygen
2. Mesosphere
3. Atmosphere
4. Cancer
5. Helium

III. Give reasons:

1. Helium is the second lightest gas. It does not burn and it is safer than hydrogen hence it is used in weather forecasting balloons.
2. When an electric current is passed through tubes containing neon at low pressure, a brilliant red orange light is produced. So, neon is used in advertising glow tubes called neon sign tubes.
3. Lighthouses use xenon arc lamps, in which light is produced by an electric arc. Xenon arc lamps produce an intense blue white light which can be seen from a long distance.

IV. Page 107, 108.

A. Tick the correct answer:

- 1-b, 2-b, 3-a, 4-a, 5-a

B. Fill in the blanks:

1. Carbon dioxide
2. potassium hydroxide (caustic potash)
3. radon
4. magnesium nitride
5. nitrogen

C. True or false. Correct the false statements.

1. True
2. False. CFCs cause thinning of ozone layer.
3. False. Liquid air has no definite boiling point.
4. True.
5. False. Helium is used in weather forecast balloons.

D. Match the following:

- 1-c, 2-d, 3-a, 4-e, 5-b

E. Answer the following:

1. Neon and Argon are used in advertising sign boards.
2. Water vapour condenses on dust particles.
3. a) carbon monoxide is poisonous to humans and animals.
b) it prevents haemoglobin in the blood from carrying oxygen.

4. Nitrogen controls the rapid combustion and oxidation by diluting the effect of oxygen in the air.
5. Refrigerators, aerosol sprays.
6. Refer to the chart on page 106.
7. Refer to page 102.
8. Refer to the chart on page 107
9. Atmospheric nitrogen is heavier than chemical nitrogen because it contains inert gases.
10. Refer to page 105. Give equation also.
11. Refer to the chart on page 106.
12. Air pollution is the presence of poisonous and harmful gases and particles (pollutants) in the air. Eg: soot and smoke, carbon dioxide, sulphur dioxide, CFCs.
13. Refer to page 105.
14. Acid rain - Refer to page 104.
15. Refer to chart on page 103.

F. Select the odd one out giving reason:

1. Nitrogen. Others are noble gases.
2. Hydrogen. Others are components of air..
3. O₂. Others are pollutant gases.
4. Scrubbers. Others cause pollution.
