Chemistry Science Questions for CDS, CGL Tier-1, Railways and SSC 10+2 Exams

Chemistry Quiz 9

Directions: Study the following questions carefully and answer the questions given below.

1. With increase in impurities, the boiling point of water _____?

A. Increases B. Decreases C. Remains same

D. Depends on other factors such as temperature, pressure

2. Which of the following is true about isotopes?

A. Same number of protons and neutrons

B. Same number of protons but different number of neutrons

C. 1Same number of electrons and neutrons

D. None of the above

3. Which of the following is a non renewable source of energy?

A. Air B. Sunlight C. Coal D. Water

4. A flame contains three parts- black, yellow and blue. Which of these three is the hottest?

A. Black B. Blue C. Yellow D. All have the same temperature

5. Kryolite is an ore of which of the following metal?

A. Aluminium B. Tin C. Silver D. Lead

6. Which of the following discovered electrons?

A. J J Thomson B. James Chadwick C. E Goldstein D. Ernst Rutherford

7. One mole of any gas at standard temperature and pressure contains a volume of_____?

A. 22.4 litres B. 2.24 litres C. 22.4 ml D, 2.24 ml

8. Which of the following is the most electronegative element in the periodic table?

A. Chlorine B. Oxygen C. Fluorine D. Astatine

9. Which of the following element has the highest melting point?

A. Silver B. Gold C. Tungsten D. Copper

10. Which of the following chemical is used for artificial rains?

A. Silver bromide B. Silver iodide C. Silver chloride D. Silver fluoride

Correct Answers:

1	2	3	4	5	6	7	8	9	10
A	B	C	B	A	A	A	C	C	B

***Explanations*:**

1.

Boiling point of water is defined as the temperature at which the vapour pressure becomes equal to the atmospheric pressure.

Adding impurities to a solution, in most cases, increases the boiling point of the solution. This occurs because the presence of impurities decreases the number of water molecules available to become vaporized during boiling. Hence, the vapour pressure becomes equal to the atmospheric pressure at a higher temperature. Thus, impurities increase the boiling point of water.

Hence, option A is correct.

2.

Isotopes are defined as elements having same number of protons and different number of neutrons. Since the number of protons is equal to the number of electrons. Therefore, number of electrons are also same in isotopes. Example of isotopes include hydrogen and deuterium.

Hydrogen contains 1 proton, 1 neutron and 1 electron whereas deuterium contains 1 proton,2 neutrons and 1 electron.

Hence, option B is correct.

3.

Sources of energy can be classified into two categories

Renewable sources of energy – The energy which is replenished after some time. It is never exhausted. Examples include- air which gives wind energy. Sunlight which gives solar energy and water which generated hydro energy.

Non renewbale sources of energy- The energy which is not replenished but is exhausted after continuous use over a period of time. Examples include- coal, minerals etc.

Hence, option C is correct.

4.

A flame has three parts basically. A candle flame consists of several different zones with different temperatures. Colors tell us the temperature of the flame.

Outer zone

Middle zone

Inner zone

The outermost zone is the hottest among all zones and is blue in color, and this is due to complete combustion. It is the non-luminous part of the flame.

The middle zone of the candle flame is moderately hot and is yellow in color, and partial combustion of fuel takes place. It is bright part of the fire.

The innermost zone of the flame is the least hot and is black in color. This is due to the presence of unburnt wax vapors.

Hence, option B is correct.

5.

An ore is defined as a naturally occurring solid material from which a metal or valuable mineral can be extracted profitably.

Kryolite is an ore of aluminium.

Hence, option A is correct.

6.

J J Thomson discovered electrons. James chadwick discovered neutrons. E Goldstein discovered protons. Ernst Rutherford discovered the atomic nucleus.

Hence, option A is correct.

7.

One mole of any gas at standard temperature and pressure contains a volume of 22.4 litres. This is also known as Avagadro's law.

One mole of nitrogen gas occupies 22.4 litres of space and one mole of CO2 gas also occupies 22.4 litres of space. Therefore, 2 moles of nitrogen gas would occupy 44.8 litres of space

Hence, option A is correct.

8.

Fluorine is the most electronegative element in the periodic table. After fluorine, oxygen is the second most electronegative element present in the periodic table.

Hence, option C is correct.

9.

Tungsten has the highest melting point. Of all metals in pure form, tungsten has the highest melting point (3422 °C, 6192 °F), lowest vapor pressure (at temperatures above 1650 °C, 3000 °F), and the highest tensile strength.

Hence, option C is correct.

10.

It's a It's a practice of artificially inducing or increasing precipitation through clouds by adding external agents. The foreign particles which are drenched over these clouds can be Dry Ice(solid carbon dioxide), Silver Iodide, Salt powder etc, Salt powder etc.

Hence, option B is correct.