**CHEMISTRY QUIZ QUESTIONS**

1. What is the common name of:
2. Calcium carbonate? Ans: Marble chips
3. Calcium oxide? Ans: Quick lime
4. Calcium hydroxide? Ans: Slaked lime
5. Cooking oil can float on water because it has…

Ans: Low density

1. The change from liquid to gas is a physical change. True or False?

Ans: True

1. At room temperature, what is the only metal that is in liquid form?

Ans: Mercury

1. What is the third most common gas found in the air we breath?

Ans: Argon.

1. State and explain the functions of tartaric acid in baking powder.

Ans: Tartaric acid reacts with sodium hydrogen carbonate to form carbon dioxide which causes the dough to rise as it tries to escape.

1. In an experiment, 30cm3 of 0.1M sulfuric acid were reacted with 30cm3 of 0.1M sodium hydroxide. Name two spectator ions in this. reaction.

Ans: Sodium ions and Sulphate ions

1. What is the fourth most abundant element in the universe in terms of mass?

Ans: Carbon

1. A cation is an ion with more protons than electrons, giving it a positive charge. True of false?

Ans: True

1. When a few drops of aqueous ammonia were added to Copper (ii) Nitrate solution, a light blue precipitate was formed. On addition of more aqueous ammonia, a deep blue solution was formed. Identify the substance responsible for the
2. Light blue precipitate.

Ans: Copper(II)Hydroxide [ Cu(OH)2(s)

1. Deep blue precipitate.

Ans: Tetra-amine Copper(II) ions [ Cu(NH3)4]2+

1. A compound whose general formula is M(OH)3 reacts as show by the equation below.

M(OH)3 (S) + OH-(aq) M(OH)4 (aq)

M(OH)3 (S) + 3H(aq) M3+(aq) + 3H2O(l)

1. What name is given to compounds which behave like M(OH)3 in the two reaction.

Ans: Amphoteric

1. Name two elements whose hydroxides behave like that of M.

Ans: Lead and Zinc

1. Soil samples are found to have the following PH values. Sample (a) had PH value 8.0 and sample (b) had a PH value 5.5. a certain crop does best in neutral soils. To which soil sample would you add urea fertilizer before planting the crop and why?

Ans: To sample (b) because urea is basic and therefore neutralizes the acidic soil sample.

1. Fractional distillation of liquid air usually produces nitrogen and oxygen as the major by-products. Name one substance that is used to remove carbon dioxide from air before it is changed into liquid.

Ans: Potassium hydroxide or sodium hydroxide.

1. The mass number of an atom is derived from the total number of…

Ans: Nucleons.

1. True of false: Isotopes have the same number of neutrons.

Ans: False

1. True or false: Convalent compounds have high melting and boiling points.

Ans: False.

1. Name an element that does not have neutrons in most of its atoms.

Ans: Hydrogen.

1. The hydrogen atom gas has the same mass as…

Ans: One neutron

1. What term is used when the formation of a bond results from the sharing of electrons?

Ans: Convalency .

1. Methane is sometimes referred to as…

Ans: Natural gas

1. True or false: Helium is a noble gas that contains eight electrons in its outermost energy level

Ans: False.

1. Brass is an alloy of copper with..

Ans: Zinc

1. When water reacts with an alkali metal it produces a metal hydroxide and …

Ans: Hydrogen.

1. Sulphur exists in two physical states, non-metallic and rhombic sulpher. What name is given to these forms of sulphur?

Ans: Allotropes.

1. What product is formed when petroleum is burned in limited supply of air?

Ans: Lampblack.

1. How much methane does coal gas contain?

Ans: 30%.

1. Name the fuel that has the highest energy content?

Ans: Petroleum.

1. Name two major components of crude oil.

Ans: diesel, petrol

1. The hydrogen ion is referred to as…

Ans: Proton.

1. What do we call the scientific idea that matter is made up of particles which are in constant motion?

Ans: Kinetic theory of matter.

1. What do we call the process of vapour changing to liquid?

Ans: Condensation.

1. What do we call the number of grams of solute required to saturate 100g of solvent at a particular temperature?

Ans: Solubility of a solute.

1. The hydrogen-2- isotope is called…

Ans: Deuterium.

1. Name the acid found in vinegar.

Ans: Ethanoic acid or acetic acid.

1. What name is used to refer to elements with the duplet or octet type of shell?

Ans: Noble gases.

1. One of the principal ores of iron is magnetite. What is its chemical formula?

Ans: Fe3O4

1. What is the formula of ammonium sulphate?

Ans: (NH4)2SO4

1. What is the name of the used to test for unsaturation or the presence of carbon-carbon double bonds?

Ans: Aqueous bromine.

1. What is the name of the bond present in a protein molecule?

Ans: Peptide bond.

1. What will be the charge of a stable ion formed by an element of atomic number 16?

Ans: 2-

1. Study the equation below.

X2 (g) + 2e- 2X-(g). identify the group in the periodic table to which element X belongs.

Ans: Group VI

1. Atoms A and B have atomic numbers 20 and 17 respectively. Which elements in group O will they resemble when they form ions?

Ans: Argon

1. State one cause of temporary hardness in water.

Asn: Presence of Ca(HCO3)2or Mg(HCO3)2

1. Explain why hydrogen forms compounds in which its oxidation state is either +1 or -1. (atomic number of H = 1).

Ans:

1. State two factor that determine the formation of ions.

Ans: i. ionization energy ii. Electron affinity

1. An atom of Hydrogen can form ions. Write down two equations to show how the neutral atom of each case show the sign of the energy change involved.

Ans: i. H(g) + e H-(g) ΔH = -ve

 Ii H e + H+ ΔH = +ve

1. An oxide of F has the formula F2O5.
2. Determine the oxidation state of “F”

Ans: 5+

1. The electronic configuration for elements represented by letters A, and B are

A = 2,8,6 , B = 2,8,1 what would be the formula of Compound formed between A and B in terms of A and B.

ANS: B2A

1. The Chemical species initially involved in a chemical reaction are called

ANS: Reactants

1. What is the valency of sulphate ions in Iron(III) sulphate

Ans: 2

1. What is the number of particles contained in one mole of any substance

ANS: 6.02 x 1023

1. What des CFCs Stand for in relation to gases in refrigerators?

ANS: Chlorofluorocarbons

1. What is the common names for Calcium sulphate.

ANS: Gypsum

1. What is the chemical symbol for Gold?

ANS: Au

1. What isotope is used in smoke detectors devices?

ANS: Americium – 241

1. Which of the sub atomic particles has the smallest mass?

ANS: Electrons

1. What name is given to group VII elements?

ANS: Halogens

1. Chromatography is a Greek word coined from two words. What are these two words I n English?

ANS: Colour and writing

1. What is the colour of the flame produced when potassium ions burning?

ANS: Lilac

1. Which f the following is a transition metal ONE ATTEMPT ONLY

SODIUM, POTASSIUM, ZINC

ANS: Zinc

1. Which noble gas has a largest percentage by volume in the air we breath?

ANS: Argon

1. What is the general formula for alkenes?

ANS: CnH2n

1. Name two smallest alcohols

ANS: (i) Methanol (ii) Ethanol

1. Steel made from Iron mixed with Chromium and Nickel is called

ANS: Stainless steel

1. Name one chemical process that removes carbon dioxide from air

ANS: Photosynthesis

1. Name the lightest gas on earth

ANS: Hydrogen

1. Which metal is the most abundant in earth’s crust?

ANS: Aluminum

1. What is the common name of the compound formed when hydrogen combines with oxygen?

ANS: Water

1. What is the total percentage of the two major gases in dry clean air in the atmosphere?

ANS: 99%

1. A pure substance that cannot be split into two or more simpler substances is called…

ANS: An element

1. Name the chemical elements found in basal dressing fertilizer N.P.K

ANS: Nitrogen, Phosphorous, and Potassium

1. An atom of the element that have different mass numbers are called…

ANS: Isotopes

1. An Instrument n which atoms or molecules are ionized and then accelerated and separated according to their mass is called…

ANS: Mass spectrometer

1. The formula that shows the simplest ratio of atoms present in a substance is known as …

ANS Empirical formula

1. A theory which accounts for the bulk properties of mate in terms of the constituent properties is called…

ANS: Kinetic theory of Matter.

1. The most reactive element f group seven is known as …

ANS Fluorine

1. A chemical bond formed due to sharing of the electron…

ANS: Covalent bonding

1. The reaction which gives out heat energy the surrounding is called…

ANS: Exothermic reaction

1. Substances that produce heat energy when they burn are called …

ANS: Fuel

1. The reactions that involve the removal or addition of hydrogen is called…

ANS: Reduction

1. The Iron ore from which Iron is extracted has a formula (Fe2O3). What is the name of this substance?

ANS: Haematite

1. The process y which different substances mix as a result of he random motions s known as…

ANS: Diffusion

1. The temperature of a solid begins to liquefy is called …

ANS Melting point

1. A short hand of method of representing chemical elements and compounds is known as …

ANS: Chemical formula

1. In relation to chemistry what do the letters I.U.P.A.C stand for?

ANS: International Union of Pure and Applied Chemistry

1. The process of adding oxygen to substance is called …

ANS: Oxidation

1. A reaction in which a more reactive element displaces a less reactive element from solution of a compound is known as …

ANS: Displacement reaction

1. A regular three-dimension arrangement of atom/ions in a crystalline solid is known as …

ANS: Lattice

1. How many electrons are shared in methane molecule (CH4) and in a water molecule (H2O)?

ANS: 8 and 4 respectively

1. What is the name of an agent which itself does not burn but causes others to burn?

ANS: Oxygen

1. Name a gas chemical test lies all in negative results only – eg does not affect both litmus papers, does not relight a glowing splint etc etc.

ANS: Nitrogen

1. Metals have a positive nucleus in atom and a sea of electrons. Which meta provides the most electrons for the sea?

ANS: Aluminum

1. An aqueous solution of compound **X** was reacted with aqueous sodium hydroxide to for a green precipitate and then aluminum foil or powder added then mixture is heated and a gas is given out which turns a damp red litmus paper blue is given off. What is **X**?
2. Name an isotope of oxygen atom which is very useful to Earths protection but dangerous to human and other life forms itself.

ANS: Ozone

1. Which quantity is the same for a mole of Ethanol and Ethene?

ANS: Number of molecules. Or number of particles

1. A substance that is used in a chemical reaction to lower the activation energy is also referred to as …

ANS: Catalyst

1. What do we call an atom or group of atoms which carries an electrical charge?

ANS: An ion

1. What is the name of the lightest non flammable gas in the periodic table?

ANS: Helium

1. What does the name halogen mean?

ANS: Salt producing

1. A fuel that is formed from dead plants and animals called…

ANS: Fossil fuel

1. Another name given to group Zero or Noble gases is …

ANS: Inert gases

1. Name the gas produced at the anode during electrolysis of concentrate d sodium chloride

ANS: Chlorine

1. What do we call a reaction that involves transformation of the nucleus of an atom?

ANS: Nuclear reaction

1. State the word equation for the electrolysis of dilute sulphuric acid…

ANS: Water Oxygen + Hydrogen

1. Which substance or group of substances called proton donors?

ANS: Acid

1. The tendency or property by metals to shine when they are polished is in metallurgy is also called?

AS: Lustrous

1. Name two conditions for Iron to corrode…

ANS: Water and Oxygen

1. Water and oil put in one container and shaken well but a moment the two form two distinctive layers. What do we call these type of mixtures?

ANS: Immiscible

1. What is the name given to an element that is added to common salt to prevent goiter?

ANS: Iodine

1. Apart from hydrogen, what other product is produced when sodium reacts with water?

ANS: Sodium Hydroxide

1. ………….. is the method used to identify the substances present in a mixture of solutes using a solvent.

ANS: Chromatography

1. What particles are responsible for conducting electricity in an electrolyte solution?

ANS: ions

1. **One attempt only**: What form of energy is contained in a car battery?

ANS: Chemical energy

1. There are three states of matter namely solid liquid and gas. What is the assigned state to a ionic compound solid which is dissolved in water?

ANS: aqueous

1. Name a deliquescent substance found in washing powder….

ANS: Sodium hydrogen carbonate. Hydrated. or hydrous sodium hydrogen carbonate

1. Name the three sub atomic particles an atom of Oxygen is made up of…

ANS: electrons, protons and neutrons

1. What is the fourth most abundant element by mass in the Earth’s crust?

ANS: Carbon

1. The mixture of Iron ore, Coke and limestone used as raw materials in extraction of Iron in the blast furnace are collectively called…

ANS: Charge

1. The common name for the ore from which aluminum is extracted is called…

ANS: Bauxite

1. Any substance which resists permanent change in its shape is called…

ANS: Fluid

1. What is the percentage of Hydrogen by mass in a molecule of water?

ANS: 11.1% or 11.1/100

1. What do we call a mixture of metals?

ANS: alloy