BYJU'S EXAM PREP

Chemistry Questions Asked in SSC CHSL Previous Years' Papers English PDF

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1.Which of the following can be beaten and converted into thin sheets?
A. Zinc
B. Phosphorus
C. Sulphur
D. Oxygen

Ans. A
Sol. • Here Zinc can be beaten and converted into thin sheets because Zinc is metal and others are non metal.
• Metals are malleable and ductile.
• Therefore we can make copper wires and aluminum wires. Non-metals are not malleable. They are brittle and break into pieces when they are beaten. Eg. Sulphur and phosphorus. They are not ductile. Non-metals cannot be made into thin wires like copper or zinc can.

2.Oxygen molecule is _____.
A. Monoatomic
B. Diatomic
C. Triatomic
D. Polyatomic

Ans. B
Sol. • Oxygen composes of two atoms of the same element i.e, oxygen molecule is **diatomic molecule**.
• Diatomic are the molecules that consist two atoms of same or different element, example- Hydrogen (H_2) or Oxygen (O_2).

3.Which of the following is false with reference to a photo-voltaic cell ?
A. It is another name as solar cell
B. It can be used as infra-red detection
C. It converts the energy of light directly into electricity by the *photovoltaic* effect
D. It converts electric energy into light energy

Ans. D
Sol. It converts electric energy into light energy is false with reference to a photo-voltaic cell. Photo voltaic cell is used to convert the light energy into the electric energy.
They are the building block of large solar panel which are used for electricity purpose.

4.Which of the following is a greenhouse gas or a gas which can deplete the ozone layer?
A. Br_2
B. OF_2
C. $CHCl_2F$
D. CO

Ans. C
Sol. Dichlorofluoromethane was utilized as a force and refrigerant, yet because of its ozone exhaustion it has been set to be eliminated. It has ozone exhaustion potential 0.04. Generation and utilization has been since 2004 decreased to 15% of level from 1989 and it is to be eliminated in 2015 as per Montreal Protocol.

5.Which of the following is false ?
A. Hydrogen atom is roughly a third of the mass of tritium
B. Deuterium is called heavy hydrogen
C. Deuterium atom has 1 neutron
D. Protium is the rarest isotope of hydrogen

Ans. D
Sol. Protium is the rarest isotope of hydrogen is false. Hydrogen without any neutron is protium, Hydrogen with one neutron is deuterium and Hydrogen with two neutrons is tritium.

6._____is a polar covalent bond.
A. P-CI
B. Ne-Ne
C. CI-CI
D. Ca-CI

Ans. A
Sol. P-CI is a polar covalent bond. In polar covalent bond shared electrons are much closer to the oxygen nucleus due to the higher electronegativity difference between oxygen and hydrogen. In polar covalent bond oxygen has partial negative charge and hydrogen has partial positive charge.

7.Adding which substance gives blue colour to glass?

A. Manganese oxide
B. Cobalt oxide
C. Chromium oxide
D. Iron oxide

Ans. B
Sol. Adding Cobalt oxide gives blue colour to glass. There are many chemicals which gives different colour on addition such as chromium gives green colour

8.Magnetiteis an ore/mineral of_____.
A. Beryllium
B. Chromium
C. Iron
D. Lead

Ans. C
Sol. Magnetite is a very common iron oxide (Fe_3O_4) mineral. It is the most commonly mined ore of Iron. It is also the mineral with the highest iron content (72.4%).

9.Which of the following gases emitted from automobile exhaust is poisonous?
A. Carbon monoxide
B. Carbon dioxide
C. Hydrocarbons
D. Sulphur dioxide

Ans. A
Sol. Majority of vehicles need oil/gas to power its engines, allowing certain mechanical and chemical reactions to occur and run the vehicle. All that stuff that goes on under the hood of a car (primarily the combustion of the fuel) releases a mixture of gases and suspended particles, which we collectively refer to as exhaust gas. Carbon monoxide(CO) is a colorless, tasteless and odorless gas and if exposed to even a minuscule amount (0.0035%) of carbon monoxide constantly for 6-8 hours, one will start experiencing the initial symptoms of carbon monoxide poisoning, which include lightheadedness, confusion, dizziness and headache.

10.Atomic number of which of the following elements is greater than that of Zinc?
A. Copper
B. Iron
C. Chromium
D. Bromine

Ans. D
Sol.
- Atomic number of Bromine (Br - 35) is greater than that of Zinc (Zn -30).
- The Atomic numbers of copper (cu), iron (fe) and chromium (cr) are 29,26 and 24 respectively.

11.Which of the following is a gas which can deplete the ozone layer?
A. N_2O
B. AsH_3
C. Nitrogen
D. H_2O

Ans. A
Sol. **Nitrous oxide** has been implicated in **thinning of the ozone layer**. A new study suggests that N_2O emission currently is the single most important **ozone-depleting substance** (ODS) emission and is expected to remain the largest throughout the twenty-first century.
• **Nitrous oxide**, commonly known as **laughing gas** or **nitrous**.
• It is a chemical compound, an **oxide of nitrogen** with the formula **N_20**.

12.Which of the following is an example of thermosetting plastic?
A. Bakelite
B. PVC
C. Polyethylene

D. No option is correct

Ans. A
Sol. • Here Bakelite is a thermosetting plastic.
• Bakelite was the first plastic made from synthetic components.
• Bakelite creation was revolutionary for its electrical nonconductivity and heat-resistant properties in electrical insulators, radio and telephone casings and such diverse products as kitchenware, jewelry, pipe stems, children's toys, and firearms.

13.Rayon is obtained from which among the following?
A. Silk
B. Wood pulp
C. Wool
D. Cotton

Ans. B
Sol. • Rayon is a manufactured fiber made from wood pulp cellulose fiber.
• The many types and grades of rayon can imitate the feel and texture of natural fibers such as silk, wool, cotton, and linen. The types that resemble silk are often called artificial silk.
• Rayon is made from purified cellulose, primarily from wood pulp, which is chemically converted into a soluble compound. It is then dissolved and forced through a spinneret to produce filaments which are chemically solidified, resulting in fibers of nearly pure cellulose.

14.Polycot is a mixture of which among the following?
A. Polyester and cotton
B. Polyester and wool
C. Rayon and cotton
D. Rayon and wool

Ans. A
Sol. • Polycot is a synthetic fiber. It is a mixed fiber.
• It is prepared by mixing two fibers **namely polyester & cotton**.
• It is used to prepare clothes.
• The fiber is almost pure cellulose.

15.Isobars have _____.
A. Same mass numbers but different atomic numbers
B. Different mass numbers but same atomic numbers
C. Same mass and atomic numbers
D. Different mass and atomic numbers

Ans. A
Sol. Isobars are atoms (nuclides) of different chemical elements that have the same number of nucleons. Correspondingly, isobars differ in atomic number (or number of protons) but have the same mass number.

16.Uraninite is an ore/mineral of _____
A. Zinc
B. Uranium
C. Titanium
D. Aluminium

Ans. B
Sol. Uraninite is an ore/mineral of Uranium.
Ore of various metal
Zinc- Zinc blende
Aluminium—Bauxite
Titanium- ilmenite

17.The upper part of the Hetrosphere is composed almost completely of which gas ?
A. Ozone
B. Nitrogen
C. Oxygen
D. Hydrogen

Ans. D
Sol. The upper part of the Hetrosphere is composed almost completely hydrogen gas. Heterosphere includes exosphere and most of the thermosphere layer.

18.Which of the following elements has the lowest melting point?
A. Sodium
B. Tin
C. Radon
D. Radium

Ans. C
Sol. The melting point of Radon is -71.15°C.
The melting point of Sodium is 97.79 °C.
The melting point of Tin is 231.9 °C.
The melting point of Radium is 696 °C.

19.Which of the following is present in Nail polish remover?
A. Citric acid
B. Acetone
C. Ethylene
D. Benzene

Ans. B
Sol. Acetone is present in Gel polish. Gel polish is a long-lasting variety of nail polish made up of a type of methacrylate polymer. Gel polish can be more difficult to remove than regular nail polish. It is usually gently pushed off after soaking the nails in pure acetone for eight to fifteen minutes.

20.What happens when one S and one P orbital is hybridized?
A. We get three orbitals in a plane
B. We get two orbitals at 180 degrees
C. We get two mutually perpendicular orbitals
D. We get four orbitals directed tetrahedrally

Ans. B
Sol. When one S and one P orbital is hybridized, we get two orbital at 180 degrees. This process of hybridization has been introduced to explain molecular structure, and observes that bond angles in organic compounds are close to 109, 120 or 180 degrees.

21.NaCI has _____.
A. nonpolar bonds
B. polar covalent bonds
C. Metallic bonds
D. ionic bonds

Ans. D
Sol. NaCI has ionic bonds. It is a type of chemical bond that generates two oppositely charged ions. The sodium atom loses an electron, forming cations (Na+), and the chlorine atoms gain an electron to form anions (Cl−). These ions are then attracted to each other to form sodium chloride.

22.Electrons in the highest energy level of an atom are called _____.
A. valence protons
B. orbital protons
C. valence electrons
D. orbital electrons

Ans. C
Sol.
- Electrons in the highest energy level of an atom are called **valence electrons** .
- Valence are outer shell electrons of an atom which mostly participate in the chemical bonding of the atom.
- The presence of valence electrons determine its chemical properties such as valence and its electronegativity and electron affinity.

23.Heavy water is_____
A. Monoterium oxide
B. Polyterium oxide
C. Deuterium oxide
D. Trisium oxide

Ans. C
Sol. Heavy water is Deuterium Oxide. It is the water in which the hydrogen is replaced by the isotope deuterium having more number of neutrons and is used mostly as a moderator in nuclear reactors to slow down fission reaction.

24.Which among the following elements has highest electronegativity?
A. Gallium
B. Sodium
C. Arsenic
D. Caesium

Ans. C
Sol. Arsenic has the highest electro negativity of 2.18. It is the tendency of an atom to attract a shared pair of

electrons towards itself. Higher the tendency to attract electrons, higher is the electro negativity.

25.Name the acid present in lemon.
A. Phosphoric acid
B. Carbonic acid
C. Citric acid
D. Malic acid

Ans. C
Sol. Acid present in lemon is Citric acid. It is mainly present in the citrus fruit and it is wark tricarboxylic acid. It is present in lemon, grapes and orange.

26.Which among the following is not a characteristic of transition metals?
A. Tendency to lose electrons
B. Low electronegativity
C. Low ionization energy
D. Malleability

Ans. A
Sol. The elements in groups 3-12 are called transition elements, or transition metals. Because of unavailability of unpaired electrons, these metals do not undergo covalent bonding. Thus, tendency to lose electrons is not a characteristic of transition metals amongst given options.

27.Ethylene is a _____molecule.
A. polar
B. ionic
C. covalent
D. nonpolar

Ans. D
Sol. A molecule may be nonpolar either when there is an equal sharing of electrons between the two atoms of a diatomic molecule or because of the symmetrical arrangement of polar bonds in a more complex
molecule. Ethylene(C_2H_4) is a nonpolar molecule because, unlike a polar molecule, it has an even distribution of electrical charges.

28.Which among the following is false about acids?
A. They give H + ions in aqueous solution
B. Most acids contain hydrogen
C. They turn blue litmus red
D. They are bad conductor of electricity in aqueous solution

Ans. D
Sol. An acid which strongly conducts electricity contains a large number of ions and is called a strong acid. Acids in aqueous solutions will conduct electricity because they contain dissolved ions. Thus, acids are good conductor of electricity in aqueous solution. So, Option D is false about acids amongst above given options.

29.Soda water was invented by
A. Tivadar Puskas
B. Joseph Priestley
C. Petrache Poenaru
D. James Leonard Plimpton

Ans. B
Sol. Soda water (also known as Carbonated
water, carbonatedbeverages) is water into which carbon dioxide gas has been dissolved under pressure. The process is known as carbonation. It causes the water to become effervescent. It was invented by Joseph Priestley, in 1767. He discovered a method of infusing water with carbon dioxide when he suspended a bowl of water above a beer vat at a brewery, England.

30.Bauxite is an ore/mineral of?
A. Aluminium
B. Beryllium
C. Lead
D. Tin

Ans. A
Sol.

- Bauxite ore is the world's primary source of aluminum.
- The ore must first be chemically processed to produce alumina (aluminum oxide)

- Alumina is then smelted using an electrolysis process to produce pure aluminum metal

31.Manganite is an ore/mineral of
A. Beryllium
B. Chromium
C. Manganese
D. Copper

Ans. C
Sol.
- Manganite is an ore/mineral of manganese.
- It is a mineral composed of manganese oxide-hydroxide found in meteoric waters along with clay and laterite.
- It is used as a catalyst for speeding up reactions and it also helps in lowering the combustion and producing fire.

32.Dynamite was invented by?
A. Jean-Antoine Nollet
B. Alfred Nobel
C. Joseph Nicephore Niepce
D. Ted Nelson

Ans. B
Sol. Dynamite was invented by Alfred Nobel in 1867. Dynamite also known as blasting agent is an explosive made of nitroglycerin, sorbents such as powdered shells or clay and stabilizer. It is mainly used in mining, quarrying, construction, and demolition industries.

33.What does a catalyst do in a reaction?
A. Changes potential energy of reactants
B. Changes kinetic energy of reactants
C. Changes potential energy of products
D. Changes activation energy

Ans. D
Sol. Catalyst changes the activation energy in a reaction, which is the minimum quantity of energy which is required to undergo a specified reaction. By putting in a catalyst, reaction gets an alternative pathway, which then reduces the time required for attaining reaction.

34.Adding which substance gives green colour to glass?
A. Calcium oxide
B. Iron oxide
C. Chromium oxide
D. Manganese oxide

Ans. C
Sol. It's when chromium oxide is added to the glass that green color appears. Such coloring agent gives out an aesthetic overtone to the glass. In addition chromium oxide, is a powerful coloring agent, and when added in higher concentration can yield even black color too. Moreover when it is added with tin oxide and arsenic it yields emerald green glass.

35.Which of the following elements has the lowest melting point?
A. Chromium
B. Hydrogen
C. Zinc
D. Silver

Ans. B
Sol. Hydrogen has the lowest melting point., melting point of Hydrogen is -259.2 °C. Hydrogen is a chemical element with symbol H and atomic number 1. With a standard atomic weight of circa 1.008, hydrogen is the lightest element on the periodic table.

36.Which of the following is applied on the top of the matchsticks?
A. Red phosphorus
B. White phosphorus
C. Potassium chlorate
D. Potassium sulphate

Ans. C
Sol.
- The head of safety matches is made of an oxidizing agent such as potassium chlorate, mixed with sulfur, fillers and glass powder.

- The side of the box contains red phosphorus, binder and powdered glass.
- When the matchstick is rubbed against the side of the matchbox, some of the red phosphorus is converted into white phosphorus; this immediately reacts with potassium chlorate in the matchstick head to produce enough heat to ignite antimony trisulphide and starts the combustion of the matchstick.

37.Malachite is an ore/mineral of
A. Lead
B. Manganese
C. Mercury
D. Copper

Ans. D

Sol.
Chemical Formula:
$Cu_2CO_3(OH)_2$
Malachite is a green **copper** carbonate hydroxide mineral with a chemical composition of $Cu_2(CO_3)(OH)_2$. It was one of the first ores used to produce **copper** metal. It is of minor importance today as an ore of **copper** because it is usually found in small quantities and can be sold for higher prices for other types of use.

38.Which among the following will be a negative ion?
A. If it has more electrons than protons
B. If it has more electrons than neutrons
C. If it has more protons than electrons
D. If it has more protons than neutrons

Ans. A
Sol.
- Protons, neutrons and electrons are the tiny little particles which all atoms are made of. Protons (p+) have a positive charge, electrons, (e-),have a negative charge and neutrons (n) don't have any charge.
- But sometimes an atom can lose electrons, so it becomes a positive ion, because there are now more + than -. Some atoms can gain extra electrons, becoming **negative ions** (more - than +).

39.The brand name Teflon represents which polymer?
A. Polystyrene
B. Polypropylene
C. Polytetrafluoroethylene
D. Polyethylene terephthalate

Ans. C
Sol. Polytetrafluoroethylene (PTFE) is a manufactured fluoropolymer of tetrafluoroethylene that has various applications. The best known brand name of PTFE-based recipes is Teflon by Chemours. Chemours is a 2015 turn off of DuPont Co., which found the compound in 1938

40.What is the chemical formula of aluminium nitride?
A. AIN
B. AI_2N
C. A_2IN
D. AIN_2

Ans. A
Sol. AIN is the chemical formula of aluminium nitride. Aluminum nitride (AlN) is a technical ceramic material that features an extremely interesting combination of very high thermal conductivity and excellent electrical insulation properties.

41.What is the formula of potassium ion in the noble gas state?
A. K^+
B. K^{2+}
C. K^{2-}
D. K^-

Ans. A
Sol. The formula of potassium ion in the noble gas state is **K^+** Potassium is a

chemical element with symbol K and atomic number 19. Potassium is chemically very similar to sodium, the previous element in group 1 of the periodic table. They have a similar first ionization energy, which allows for each atom to give up its sole outer electron.

42.The Chemical formula of Cadmium nitrate is _____.

A. $Cd(NO_3)_2$

B. $CdNO_3$

C. $Cd_2(NO_3)_2$

D. Cd_2NO_3

Ans. A

Sol.

- The Chemical formula of Cadmium nitrate is $Cd(NO_3)_2$.
- Its IUPAC name is Cadmium (II) nitrate.

43.Which of the following is a Synthetic rubber?

A. Leoprene

B. Monoprene

C. Neoprene

D. Isoprene

Ans. C

Sol.

- **Neoprene** are synthetic rubbers with chemical stability, flexibility and inertness that are produced by polymerization of chloroprene.
- It is used as orthopedic braces (wrist, knee, etc.), electrical insulation, automotive fan belts and corrosion resistant coatings.

44.Who discovered Oxygen?

A. Carl Scheele

B. Hooke

C. Heisenberg

D. William

Ans. A

Sol. Carl Scheele & Joseph Priestley discovered oxygen. Oxygen is a chemical element with atomic number 8 and symbol O. It is highly reactive which easily form oxides with other elements. It is non-metal and gaseous in nature. Oxygen was discovered in the year 1772.

45.Which among the following is false about natural rubber?

A. It is an elastomer

B. It is a monomer of cisisoprene

C. Natural rubber is a polymer of chloroprene

D. It is heated with sulphur compounds to improve its properties

Ans. B

Sol. Natural Rubber is an elastic substance obtained from the latex sap of trees.It combines high strength and resistance to fatigue due to polymer of chloroprene. It is heated with sulphur compounds to improve its ability to stick to itself and to other materials making it easier for fabrication.

46.Which of the following elements has the lowest melting point?

A. Platinum

B. Carbon

C. Cobalt

D. Krypton

Ans. D

Sol. Krypton has the lowest melting point. Krypton melting point is -157.37 degree celcius. It is the member of noble gas whose atomic number is 36. It is mostly used in lighting and photography.

47.If water smells bad, then that odour can be removed by adding

A. alum

B. bleach

C. activated carbon

D. deactivated nitrogen

Ans. C

Sol. Activated carbon, also called activated charcoal, is a form of carbonprocessed to have small, low-

volume pores that increase the surface area available for adsorption or chemical reactions. Activated carbon is very effective in removing bad odour from air or water. Activated carbon can also remove bad taste from water.This is why is activated carbon used in air and water purifiers.

48._____gets converted to phosgene, when exposed to sunlight.
A. Chloroform
B. Acetone
C. Benzene
D. Propylene

Ans. A
Sol. Phosgene is the chemical compound with the formula $COCl_2$. Upon ultraviolet (UV) radiation in the presence of oxygen, Chloroform slowly converts into phosgene by a radical reaction, releasing HCl in the process.
$2\ CHCl_3 + O_2 \rightarrow 2\ COCl_2 + 2\ HCl$

49.The mass of proton and mass of _____ is same.
A. Neutron
B. Electron
C. Isoprone
D. None of the above

Ans. A
Sol.

- Protons and neutrons have nearly the same mass while electrons are much less massive.
- If we assume that a neutron has a mass of 1, then the relative masses are:

Neutron = 1.
Proton = **0.99862349**.

50.Whatis the full form of PVC?
A. Phosphonil vinyl Carbonate
B. Polyvinyl S Carbonate
C. Polyvinyl Carbonate
D. Polyvinyl Chloride

Ans. D
Sol. PVC is abbreviated as polyvinyl chloride. It is a thermoplastic which is made by polymerization of the monomer vinyl chloride CH2=CHCl. PVC turns soft when heated and hard when cooled. Due to its qualities like light weight, low reactivity and high strength and recyclability it's used in making pipes, electric cable insulation.

51.Aromatic hydrocarbons contain at least _____ benzene like ring in their molecules.
A. four
B. three
C. two
D. one

Ans. D
Sol. Aromatic hydrocarbons contain at least one benzene like ring in their molecules. Aromatic compounds are made up of benzene ring structures with delocalized π(pi) electron density that imparts unusual stability and strong odour to the hydrocarbons. They are less reactive and useful industrial solvent produced from petroleum and coal tar. Example: Napthalene balls.

52.Chromite is an ore/mineral of
A. Zinc
B. Uranium
C. Chromium
D. Titanium

Ans. C
Sol. Chromite is an ore of chromium and an oxide mineral composed of chromium, iron, and oxygen which has high specific gravity and magnetic property. It is found in ulta basic igneous and sedimentary rocks and used as a refractory material, because of its high heat stability. The chromium extracted from chromite is used in chrome plating and alloying for production of corrosion resistant super alloys, nichrome, and stainless steel.

53.Who discovered Nitrogen?
A. Faraday
B. Heisenberg
C. Hooke
D. Rutherford

Ans. D
Sol.

- Rutherford discovered nitrogen in 1772.
- Nitrogen is a colorless, Odorless and inert gas and has a chemical element with symbol N and atomic number 7.
- And it is lightest member of group 15 of periodic table.
- It constitutes 78% of earth's air and is also used as a fertilizer.

54.What is the chemical formula of aluminium nitride ?
A. AlN
B. Al_2N
C. AlN_2
D. Al_2N_2

Ans. A
Sol.

- **AlN** is the chemical formula of aluminium nitride.
- Aluminum nitride (AlN) is a technical ceramic material that features an extremely interesting combination of very high thermal conductivity and excellent electrical insulation properties.

55.Which drug is used as an Anti-Histamine?
A. Fexofenadine
B. Ranitidine
C. Promethazine
D. Ibuprofen

Ans. C
Sol. Promethazine is the generic form of the brand-name drug Phenergan, used as an antihistamine, sedative, and anti-nausea drug. Your doctor may also prescribe promethazine to relieve allergy symptoms like runny nose and watery, red eyes, or prevent and treat motion sickness.

56.Carotene in fruits and vegetables gives it which color?
A. Green
B. Pink
C. Orange
D. Blue

Ans. C
Sol. Beta-carotene is a red-orange pigment found in plants and fruits, especially carrots and colourful vegetables. The name beta-carotene is derived from the Greek "beta" and Latin "carota" (carrot). It is the yellow/orange pigment that gives vegetables and fruits their rich colors.

57.Analgesics _____.
A. relieve acidity
B. relieve pain
C. relieve itching
D. relieve bloating

Ans. B
Sol. An analgesic or painkiller is any member of the group of drugs that are designed to relieve pain without causing the loss of consciousness.

58.NaNo3 is commonly known as _____.
A. Common Salt
B. Borax
C. Chile Saltpeter
D. Trona

Ans. C
Sol. $NaNo_3$ is commonly known as Chile Saltpeter.
Borax - $NA_2B_4O_7.10H_2O$
Common salt - NaCl

59.Ilmenite is an ore/mineral of.....
A. Titanium
B. Copper
C. Lead
D. Manganese

Ans. A
Sol. Ilmenite is an ore/mineral of Titanium. The chemical formula of ilmenite is FeTiO3. It is main source of titanium dioxide that is used in paints, fabrics, plastics, paper etc. The color of Ilmenite is black or gray. it contains high resistance for weathering.

60.Decane has how many many hydrogen atoms ?
A. 22
B. 33
C. 11
D. 44

Ans. A
Sol. Decane has 22 hydrogen atoms. It is a component of gasoline and kerosene. it is a nonpolar solvent, does not dissolve in water, and is readily combustable. the chemical formula for Decane is c10h22.

61.The common name of dichlorodifluoromethane is _____.
A. Galena
B. Freon
C. Gypsum
D. Borax

Ans. B
Sol. Common name for **dichlorodifluoromethane** (**R-12**) is **Freon-12. It is** a colorless gas.
• It is soluble in many organic solvents.
• Dichlorodifluoromethane was one of the original propellants for Silly String.
• R-12 cylinders are colored white.

62.Who invented the periodic table?
A. Faraday
B. Mendeleev
C. Newton
D. Bohr

Ans. B
Sol. **Dmitri Ivanovich Mendeleev** was a Russian chemist and inventor. He formulated the Periodic Law, created a farsighted version of the periodic table of elements in 1869, and used it to correct the properties of some already discovered elements and also to predict the properties of eight elements yet to be discovered.

63.Atomic number of which of the following elements is greater than that of Fluorine?
A. Sodium
B. Beryllium
C. Nitrogen
D. Boron

Ans. A
Sol. Atomic number of Sodium is greater than that of Fluorine
- The atomic number of Fluorine is 9.
- The atomic number of Sodium is 11.
- The atomic number of Beryllium is 4.
- The atomic number of Nitrogen is 7.
- The atomic number of Boron is 5.

64.Which of the following induces souring of milk?
A. Acetic Acid
B. Citric Acid
C. Ascorbic Acid
D. Lactic Acid

Ans. D
Sol.
- Soured milk is produced by the acidification of milk.
- Soured milk that is produced by the addition of an acid, with or without the addition of microbial organisms, is more specifically called acidified milk.
- The lactic acid is commonly used for acidification process.

65.The common name of hydrogen peroxide is
A. borax
B. bleach (liquid)
C. baking soda
D. gypsum

Ans. B
Sol. The common name of hydrogen peroxide is bleach in liquid form. It is used as an oxidizer, bleaching agent and antiseptic. It's chemical formula is H_2O_2. Its chemistry is dominated by the nature of its unstable peroxide bond.

66.Why does carbon tetrachloride have no dipole moment?

A. Because of same size of carbon and chlorine atoms
B. Because of regular tetrahedral structure
C. Because of planar structure
D. Because of similar electron affinities of carbon and chlorine

Ans. B
Sol. Carbon Tetrachloride has no dipole moment because of regular tetrahedral structure. As each of the four C-Cl bond is distinctly polar but the resultant moment of any three of them is equal in magnitude and opposite in direction to the moment due to the fourth one. So, the molecule's net dipole moment is zero, and it is non-polar.

67.Which among the following compounds has the strongest hydrogen bond?
A. HI
B. HCI
C. HF
D. HBr

Ans. C
Sol. HF has the strongest hydrogen bond. There is polar covalent bond between Hydrogen and Fluorine.

68.Which compound is used in Anti-malarial drug?
A. Aspirin
B. Neosporin
C. Chloroquine
D. Antacid

Ans. C
Sol. Chloroquin is used in Anti-Malarial drug. Chloroquine was discovered in 1934 by Hans Andersag. It is commonly used in areas where malaria is common. Malaria is a caused by parasite.

69.Cinnabar is an ore/mineral of
A. Lead
B. Manganese
C. Molybdenum
D. Mercury

Ans. D
Sol. Cinnabar refer to the common bright scarlet to brick-red form of mercury (II) sulfide (HgS) . It is the most common source ore for refining elemental mercury. Cinnabar generally occurs as a vein-filling mineral associated with recent volcanic activity and alkaline hot springs. The mineral resembles quartz in symmetry. It has a mean refractive index of ~3.2, a hardness between 2 and 2.5, and a specific gravity of ~8.1. It has a structure that is like rhombohedral crystalline lattice.

70.Which among the following is used to generate light, to weld metals?
A. Ethylene
B. Acetylene
C. Glycol
D. Oxalic acid

Ans. B
Sol. Acetylene is used to generate light to weld metals. Combustion of acetylene with oxygen produces a light. Oxyacetylene is the hottest burning common fuel and it lends easily to braze-welding, metal heating and loosening of corroded nuts and bolts further its used in lamps for incandescent lightening.

71.For what is Radiocarbon dating technique used?
A. To estimate soil contamination
B. To estimate the amount of water in fossils
C. To estimate the age of fossils
D. To estimate the quality of soil

Ans. C
Sol. Radiocarbon dating is a method for determining the age of an object containing organic material by using the properties of radiocarbon C14, a radioactive isotope of carbon. The method was developed by Willard Libby and won Nobel Prize in Chemistry for his work in 1960.

72.What is baking soda?

A. Aluminium bicarbonate
B. Sodium isolate
C. Sodium bicarbonate
D. Aluminium sulphate

Ans. C
Sol. Sodium bicarbonate is the chemical name for baking soda. And has a chemical compound with the formula $NaHCO_3$. It is made up of salt composed of sodium ions and bicarbonate ions, and is a white solid that is crystalline but often appears as a fine powder. It is mainly used for household cleaning purpose.

73.Which chemical compound is also known as 'Oil of Vitriol'?
A. Calcium Hydroxide
B. Sulphuric Acid
C. Nitrous Oxide
D. Calcium Hydride

Ans. B
Sol. **Dilute sulphuric** acid was first discovered by the l**iquefaction** of **green vitriol** which is **iron sulphate** having water of crystallization**(FeSO4.7H2O)**. So as the liquefaction took place, **sulphuric acid** was discovered and due to its appearance it was called **oil of vitriol.**

74.Sodium Carbonate is commonly known as
A. Baking Soda
B. Washing Soda
C. Caustic Soda
D. Caustic Potash

Ans. B
Sol. Sodium carbonate is well known domestically for its everyday use as a water softener. It can be extracted from the ashes of many plants growing in sodium-rich soils, such as vegetation from the Middle East, kelp from Scotland and seaweed from Spain.

75.Alkali metals can
A. be highly unstable at room temperature
B. vaporize at room temperature
C. easily gain electrons
D. easily lose electrons

Ans. D
Sol. Alkali metals can easily lose electrons. They readily lose their outermost electron as they have only one electron in their outermost shell, so it becomes easier for them to lose one electron to form cations with 1+ charge, instead of gaining electron. Because of this, the alkali metals are all shiny, soft, highly reactive metals at- standard temperature and pressure.

76.Acetic acid is known as _____
A. Caustic soda
B. Spirit
C. Baking soda
D. Vinegar

Ans. D
Sol. Acetic acid is known as vinegar. The molecular formula of acetic acid is CH_3COOH. Acetic Acid is a synthetic carboxylic acid with antibacterial and antifungal properties and it is used as reagent. Acetic acid, also known as ethanoic acid and methanecarboxylic acid, is a colorless liquid that has a strong and distinct pungent and sour smell.

77. What is the chemical name of slaked lime?
A. Calcium Nitrate B. Sodium Chloride
C. Calcium Oxide
D. Calcium Hydroxide
Ans. D
Sol.
• **Calcium hydroxide** is also called **slaked lime.** Its chemical formula is **$Ca(OH)_2$**.
• It is a colorless crystal or white powder. It is produced when quicklime is mixed or slaked with water.

78. After going through the processes of scouring and bleaching, 99% of cotton is made up of which polymer?
A. Epoxy B. Cellulose
C. Proteins D. Teflon
Ans. B
Sol.
• After scouring and bleaching, cotton is actually **99% cellulose**. Cellulose is a macromolecule made up of a long chain of glucose molecules.
• The cellulose chains within cotton fibers are held in place by hydrogen bonding.

79. _____ is the process, by which, water vapour in the air is changed into liquid water.
A. Decantation B. Precipitation
C. Evaporation D. Condensation
Ans. D
Sol.
• **Condensation** is the process through which water vapour changes into liquid water.
• It is also responsible for the formation of clouds.
• It occurs in the atmosphere when warm air rises, cools and looses its capacity to hold water vapour.

80. Nylon is used in which of the following?
A. Sleeping bags B. Parachute
C. Toothbrush
D. All options are correct
Ans. D
Sol.
Nylon is a generic name for the family of synthetic polymers. it is used in various things like toothbrush, clothes, etc.

81. The joint process of vapourisation and condensation is called _____.
A. Sublimation B. Chromatography
C. Distillation D. Crystallisation
Ans. C
Sol.
• The joint process of vapourisation and condensation is called **Distillation**.
• Distillation is the process of separating the components or substances from a liquid mixture by using selective boiling and condensation.

82. _____ is the primary acid present in ripe bananas.
A. Formic Acid B. Sulphuric Acid
C. Malic Acid
D. Hydrochloric Acid
Ans. C
Sol.
• **Malic acid is the main principal acid present in the ripe banana**.
• Citric and Oxalic acids are also present in the ripe banana.
• Malic acid is a tart-tasting organic dicarboxylic acid that plays a role in many sour or tart foods.
• It is an organic compound with the molecular formula $C_4H_6O_5$.

83. _____ are stable, negatively charged particles found in all atoms.
A. Photons B. Protons
C. Neutrons D. Electrons
Ans. D
Sol.
• **Electrons** are the negatively charged particles of atom. Together, all of the electrons of an atom create a negative charge that balances the positive charge of the protons in the atomic nucleus.
• Electrons are extremely small compared to all of the other parts of the atom.

84. _____ gas gives an orange glow when electricity is passed through it. It is generally used in fluorescent lighting.
A. Nitrogen B. Hydrogen
C. Neon D. Oxyg

Ans. C
Sol.
• **Neon** gas gives an orange glow when electricity is passed through it.
• It is generally used in fluorescent lighting.

85. Which of the following gases has an odour that is similar to the odour of rotten eggs?
A. Hydrogen Sulfide
B. Dimethylcyclohexane
C. Chlorine D. Ammonia
Ans. A
Sol.
Hydrogen Sulfide has an odour that is similar to the odour of rotten eggs.
• It generally found in drilling of crude oil and natural gas also in wastewater treatment facilities and sewers. It is colourless, flammable and corrosive gas.
• Repeated exposure over time to high levels of H2S may cause convulsions, coma, brain and heart damage, even death.

86. Which element must be present in a compound to classify it as an organic compound?
A. Carbon B. Iron
C. Ammonia D. Zinc
Ans. A
Sol.
Carbon must be present in a compound to classify it as an organic compound.
• They consist of Hydrogen, oxygen, carbon and their other derivates.
• Organic compounds are said to be more volatile, highly inflammable & generally insoluble in water.

87. Which of the following metals has an ore named 'Galena'?
A. Nickel B. Copper
C. Iron D. Lead
Ans. D
Sol.
• **Galena** is the main ore of **lead**.
• It is used since ancient times.
• It typically forms in low-temperature sedimentary deposits.
• Galena is the natural mineral form of lead(II) sulfide (PbS).
• It is the most important ore of lead and an important source of silver

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