

TS POLYCET 2024 Chemistry Answer Key with Questions

Q. What is the symbol used in a chemical equation to represent the gas evolved in a reaction?

Ans. \uparrow

Q. Volume occupied by 10 g of hydrogen at STP in litres is

Ans. 112

Q. Quantum mechanical model of atom was developed by

Ans. Erwin Schrodinger

Q. Maximum no. of electrons in a sub shell is equal to

Ans. $2(2l + 1)$

Q. Number of unpaired electrons present in carbon atom

Ans. 2

Q. Law of octaves was proposed by

Ans. Newlands

Q. Number of elements present in sixth period of modern periodic table

Ans. 32

Q. Which one of the following atom is smaller in size?

Ans. C

Q. Ionisation energy along a period from left to right generally

Ans. Increases

Q. Element with atomic number 17 belongs to

Ans. VII A group, 3 rd period

Q. Oxygen gains electrons during the chemical changes.

Ans. 2

Q. Number of bond pairs and lone pairs in the valence shell of nitrogen in NH_3 .

Ans. 3, 1

Q. Bond angle in BeCl_2 molecule is

Ans. 180°

Q. Ionic bond is formed due to transfer of electrons from

Ans. Metal atom to non-metal atom

Q. Polar covalent bond present in

Ans. HCl

Q. Double bond present in

Ans. N_2

Q. The colour of methyl orange indicator in basic solution is

Ans. Yellow

Q. The reaction of an acid with a base to give a salt and water is known as

Ans. Neutralization

Q. Which one of the following is used for disinfecting drinking water?

Ans. Bleaching powder

Q. The process of dissolving acid or base in water is

Ans. Endothermic process

Q. The metal that occurs in the free form (native) is

Ans. Au

Q. Galena is an ore of

Ans. Pb

Q. In smelting the ore is

Ans. Oxidized

Q. The hydrocarbons containing only single bonds between carbon atoms are called

Ans. Alkanes

Q. If the hydrogen atom of $-\text{COOH}$ gets replaced by 'R' (alkyl group) _____ are obtained.

Ans. Esters

Q. The number of sigma and π -bonds in ethyne molecule:

Ans. 3 sigma, 2 π

Q. The process of conversion of starches and sugars to $\text{C}_2\text{H}_5\text{OH}$ is called

Ans. Fermentation

Q. Which of the following is an unsaturated compound?

Ans. $\text{CH}_3 - \text{CH} = \text{CH}_2$

Q. The final compound formed when methane react with chlorine in presence of sunlight is

Ans. CH_3Cl