CHEM MCQ

Anti-foaming reagent used in boiler to avoid foaming is

Ans: castor oil

Corrosion between dissimilar metals is called as

Ans: Galvanic corrosion

In demineralization process of water softening exhausted anion exchange resin can be regenerated by

Ans: dil.Alkali (NaOH)

Sulphur system is

Ans: One component

Phase diagram of water system are explained by how many degrees of freedom

Ans: 2

At the end of phenolphthalein alkalinity water sample will have only

Ans: HCO_3^- ions

In galvanization pickling can be carried out by using

Ans: Dil Sulphuric acid

In thermal decomposition of CaCO3 each phase can be expressed by using how many components

Ans: 2

Excessive corrosion takes place if corrosion product is

Ans: Volatile

Hydrogen evolution mechanism occurs in what type of environment

Ans: Acidic

Where does corrosion occurs in rusting of iron?

Ans: At anode

In phase diagram of water system what is the critical pressure

Ans: 2018 atm

Exhausted zeolite can be regenerated by

Ans: 10% NaCl

Calculate total hardness of water if water sample contains $Ca(HCO_3)_2$ = 50 ppm & $MgCl_2$=40 ppm

Ans: 72.96 ppm

A water sample is not alkaline to phenolphthalein. However 100 ml of the sample of water on titration with 0.02N HCl requires 10 ml to obtain the end point by using methyl orange indicator. Calculate amount of alkalinity.

Ans: 100 ppm

100 ml water sample requires 20 ml of 0.01 M EDTA solution for end point using EBT as indicator. Calculate hardness of water.

Ans: 200 ppm

In oxygen absorption mechanism of corrosion, cathodes usually have _____ areas than anode

Ans: Larger

Rate of corrosion of anodic region is directly proportional to the

Ans: Cathodic area

Role of backfill is to ____ electrical contact

Ans: Increase

Dissolved oxygen from water is determined by which method

Ans: Winkler's method

In the calculation of G.C.V. of fuel by bomb calorimeter, acid correction is

Ans: First added and finally subtracted

Where does corrosion occur in the rusting of iron?

Ans: At anode

Surface/Chemical conversion coatings also known as

Ans: Non metallic coatings

Scale formation in boiler causes the problem of

Ans: all of these

Dissolved oxygen is found out by which type of titration

Ans: Iodometric titration

Crude oil contains mainly

Ans: All of the above

The gas liberated in the experiment to find nitrogen % in coal is

Ans: NH3

To remove sulphur from crude oil, it is treated with

Ans: Copper oxide

In the calculation of G.C.V of a fuel by bomb calorimeter, cooling correction is

Ans: Added in the actual rise in temp.

In the calculation of G.C.V of fuel by bomb calorimeter, fuse wire correction is

Ans: First added and finally subtracted

Which of the following has property of absorbing moisture

Ans: Anhydrous CaCl2

Function of air jacket in bomb calorimeter experiment is

Ans: To minimize heat losses

Fuel cell is

Ans: Device that converts Chemical energy from fuel into electrical energy.

Cetane number is considered for

Ans: Diesel

In a typical H_2-O_2 fuel cell, oxygen gets

Ans: Reduced

By which rule formation of metal oxide on metals will be studied

Ans: Pilling-Bedworth

In hydrogen evolution mechanism of corrosion, anodes usually have ____ areas than cathode

Ans: Larger

Which of the following factor influences the rate and extent of corrosion?

Ans: Both nature of metal and environment

Thermoplastics are soluble in

Ans: Organic solvents

Degree of polymerization is

Ans: Number of repeating units

Sulphur in the coal, in the experiment of finding sulphur % gets finally converted to

Ans: BaSO4

Polyacetylene,Polyaniline,Polypyrrole,Polythiophene are examples of

Ans: Conducting polymers

As extent of cross-linking of polymer chains increase, its Tg_____

Ans: Increase

Electronic transition occurs in the molecule due to absorption of _____ radiation.

Ans: UV-Visible

UV and visible region of the EMR spectrum comprise of ____ and ____

Ans: 200-400 nm and 400-800 nm

Electromagnetic radiation is treated as discrete packets of energy called

Ans: Photons

Which polymerization technique gives highly pure product

Ans: Bulk

Example of bifunctional monomer is ____

Ans: CH2=CH2

A fuel sample contains 12% H and 88% carbon. Calculate the quantity of air required for complete combustion of 1 kg fuel.

Ans: 14.35 kg

Binders and stabilizers are used in

Ans: Compounding of plastics

Addition polymerization is

Ans: Exothermic reaction

Condensation polymerization is

Ans: Endothermic reaction

Thermoplastics are formed by

Ans: Addition polymerization

Small molecules which upon repeated linking form polymers are called ____

Ans: Monomers

Plasticizer is added to plastics because…

Ans: it increases plasticity and flexibility

As Degree of polymerization increases, its molecular weight ____

Ans: Increases

Trifunctional monomer

Ans: Have 3 reactive sites

Nylon is chemically

Ans: Polyamide

The temperature below which polymer is hard, brittle and above which it is softer and flexible is known as_____

Ans: Glass transition temperature

A bomb pot used in bomb calorimeter is made of

Ans: Stainless steel

In nitrogen estimation, the liberated NH3 is absorbed in known volume of standard

Ans: Acid

During Determination of alkalinity in water when P=1/2M, which ions are present in water

Ans: CO_3^{2-} ions are present