18CYB101J-CHEMISTRY (CT-3)

* Required

PART - A

Answer all the questions 16 X1= 16 Marks

The isomers which can be inter converted through rotation around a single bond are: *

- (●) Conformers
- ( ) Diastereomers
- ( ) Enantiomers
- ( ) Positional isomers

Anhydrous inorganic liquid metal surface in absence of moisture undergoes _____ *

- ( ) Wet corrosion
- (●) Dry corrosion
- ( ) Galvanic corrosion
- ( ) Pitting corrosion

Helmholtz free energy A is expressed as *

- ○ A=U+TS
- ○ A=H+TS
- ◉ A=U-TS
- ○ A=H-TS

Enantiomers are *

- ○ molecules that have a mirror image
- ○ molecules that have at least one stereogenic center
- ○ non-superimposable molecules
- ◉ non-superimposable molecules that are mirror images of each other

Identify the hard acid from the following *

- ◉ AlCl3
- ○ N2H4
- ○ H2O
- ○ OH (-)

Which of the following compounds will exhibit cis-trans isomerism? *

- ◉ 2-butene

- 2-butene
- 2-butyne
- 2-butanol
- Butanal

_____is the device used to measure the emf of the cell. *

- Voltmeter
- Potentiometer
- Ammeter
- Multimeter

Passivity is due to *

- Higher EMF
- Lower EMF
- Oxide film
- Higher pH

Identify reducing agent the following *

- OSO4
- PCC
- LiAlH4
- K2Cr2O7

Losing of small molecule from original organic molecule is *

- Elimination reaction

- Elimination reaction
- Substitution reaction
- Addition reaction
- Both A and D

The potential energy of n-butane is minimum for *

- Skew conformations
- Staggered conformations
- Eclipsed conformations
- Gauche

Which of the following is an initiator molecule in the free radical polymerisation? *

- Benzoyl peroxide
- Sulphuric acid
- Potassium permanganate
- Chromium oxide

In gauche conformations, the methyl groups are *

- 60 degree apart
- 90 degree apart
- 180 degree apart
- 360 degree apart

The ionisation isomer of [Cr(H2O)4Cl(NO2)C] is *

- [ ] [Cr(H2O)4(O2N)]Cl2
- [x] [Cr(H2O)4Cl2](NO2)
- [ ] [Cr(H2O)4Cl(ONO)Cl
- [ ] [Cr(H2O)4Cl2(NO2)] H2O

An acceptor of pair of electron is termed as *

- [ ] Nucleophile
- [x] Electrophile
- [ ] Carbocation
- [ ] Anion

Which of the following is an example of optically active compounds without chirality? *

- [ ] Tartaric acid
- [x] Sulfhonium salt
- [ ] Diphenic acid
- [ ] Glyceraldehyde

Back Next