

Question	Answer1	Answer2	Answer3	Answer4	Answer5	CorrectOption	Difficulty Level	Marks	Topic	Question Type
If a reaction has a positive value for its enthalpy and a negative value for its entropy, which of the following is true?	The reaction is nonspontaneous	The reaction is spontaneous at low temperatures	The reaction is spontaneous	The reaction is spontaneous at high temperature		Answer1	3	1	Topic 1	MCQ
The value of molar conductance _____ with decrease in the volume of electrolyte solution	increases	remain unchanged	becomes zero	decreases		Answer4	3	1	Topic 1	MCQ
Specific conductance of an electrolyte solution _____ with increase in cell constant	is independent	show no change	decreases	increases		Answer4	2	1	Topic 2	MCQ
As concentration increases specific conductance _____	decreases	remain unchanged	increases	becomes zero		Answer3	1	1	Topic 2	MCQ
Both cations and anions possess same transport number at _____	infinite dilution	elevated temperature	higher concentration	absolute zero of temperature		Answer2	2	1	Topic 2	MCQ
The conductance offered by unit volume of solution is called _____	Molar conductance	equivalent conductance	specific conductance	electrolytic conductance		Answer3	1	1	Topic 2	MCQ
At infinite dilution, the cation migrates _____ of its anion	dependent of concentration	independently	dependent on nature	dependent on type		Answer2	1	1	Topic 2	MCQ
Solubility product of a sparingly soluble salt is _____ with increase in temperature	independent	dependant	altered	dependant on type of the salt		Answer1	1	1	Topic 2	MCQ
The _____ creates a boundary in the moving boundary experiment	principal electrolyte	Indicator electrolyte	supporting electrolyte	non electrolyte		Answer2	1	1	Topic 2	MCQ
At constant temperature and pressure for spontaneous reaction there is decrease in _____	entropy	Gibbs free energy	kinetic energy	thermal energy		Answer2	2	1	Topic 1	MCQ

The molar conductance of 0.1 M acetic acid solution is 15.2 $\text{cm}^2\text{ohm}^{-1}$ at 298 K and the conductivity at infinite dilution is 165.5 $\text{cm}^2\text{ohm}^{-1}$. The degree of dissociation of ammonium hydroxide is _____.	60.3	9.02	0.802	0.092		Answer4	3	1	Topic 2	MCQ
In ionic bond electropositive transfer electrons to electronegative element to acquire --- configuration.	common emitter	common collector	stable inert gas	electronic		Answer3	1	1	Topic 3	MCQ
The lattice energy increases in molecules having cations with --- configuration	d8	d10	d5	d2		Answer2	3	1	Topic 3	MCQ
Only those atomic orbitals in the valence shell of each atom that have _____ can take part in overlapping to form a covalent bond	paired electrons of opposite spins	paired electrons of same spin	unpaired electrons of same spin	unpaired electrons of opposite spin		Answer4	1	1	Topic4	MCQ
Hybridisation involves combination of atomic orbitals of _____ energy to form equal number of new orbitals of equivalent energy	same/similar	different	different atoms	unstable energy		Answer1	2	1	Topic 4	MCQ
The molecular electronic configuration of diatomic hydrogen molecule is _____.	$\sigma^2 2s^2$	$\sigma 2s^2$	$\sigma^* 1s^2$	$\sigma 1s^2$		Answer4	2	1	Topic 5	MCQ
_____ orbital can be rotated freely around the bond axis.	pi molecular	sigma molecular	delta atomic	sigma atomic		Answer2	1	1	Topic 5	MCQ
The rate determining step of the reaction is the _____ step.	slowest	fastest	middle	none of the above		Answer1	1	1	Topic 6	MCQ
Organometallic compounds are compounds in which the carbon atom is _____ bonded to the metal.	directly	indirectly	not	hydrogen		Answer1	1	1	Topic 7	MCQ
Reaction of methyl lithium with acetone gives _____.	methanol	ethanol	tertiary butanol	isopropyl alcohol		Answer3	2	1	Topic 7	MCQ
Phenol is also called as _____.	Carboxylic acid	Phenolic acid	carbolic acid	Picric acid		Answer3	1	1	Topic 8	MCQ
2,4,6-Trinitrochlorobenzene when heated with warm water gives _____.	2,4,6-Trinitrobenzene	Sulphanilic acid	Picric acid	Styphenic acid		Answer3	3	1	Topic 8	MCQ