Chemistry Theory Paper I - Physical Chemistry Semester IV

Item Text	Option Text 1	Option Text 2	Option Text 3	Option Text 4
In an electrolytic cell the electrode at which the electrons enter the solution is called the _____ ; the chemical change that occurs at this electrode is called _____.	anode, oxidation	anode, reduction	cathode, oxidation	cathode, reduction
Electric energy has unit ---	Volt-Coulombs	Volts	Coulombs	Faraday
Weston saturate standard cell at 25 degree Celsius provides	6.023 volts	1.872 volts	1.01807 volts	0.0591 volts
In de-electronation process ------- takes place.	oxidation of metal atom	reduction of metal atom	both oxidation and reduction	deposition of electron
In a Daniell cell …	the chemical energy liberate during redox reaction is converted to electrical energy.	the electric energy of the cell is converted to chemical energy.	the energy of cell is utilised in conduction of the redox reaction.	the potential energy of the cell is converted into electric energy.
A galvanic cell has electrical potential 1.1 v. If an opposing potential of the 1.1 v is applied to this cell, what will happen to the cell reaction and current flowing through the cell?	The reaction stops and no current flows through the cell.	The reaction is continuous but current flows in opposite direction.	The concentration of reactants becomes unity and current flows from cathode to anode.	The cell does not function as a galvanic cell and zinc is deposited on zinc plates
The internal reference electrode in glass electrode is	SCE.	Ag-Agcl	glass membrane	mercury
Net electric work is given by	–nFE	ΔH	nFE	ΔG

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A standard hydrogen electrode has a zero potential because	Hydrogen can be most easily oxidised	Hydrogen has only one electron	the electrode potential is assumed to be zero	Hydrogen is the lightest element
In a galvanic cell , the salt bridge	participate chemically in the cell reaction	stop the diffusion of ions from one electrode to another	is necessary for the occurrence of the cell reaction	ensure mixing of the two electrolytic solutions
The difference between the electrode potentials of two electrodes when no current is drawn through the cell is called …	cell potential	cell emf	potential difference	cell voltage
Daniell cell is	Secondary cell	irreversible cell	primary irreversible cell	primary reversible cell
In Daniell cell, reduction occurs at the	anode	Zinc rod	negative electrode	positive electrode
In Nernst equation the constant 0.059 at 298k represents the value of	RT/nF	RT/F	2.303RT/nF	2.303RT/F
The concept of electrode potential is explained on the basis of	Arrhenius theory	Ostwald's theory	Nernst's theory	Faraday's law
The electrochemical cell stops working after sometime because	Electrode potential of both the electrodes becomes zero	Electrode potential of both the electrodes become equal	One of the electrode is eaten away	The cell reaction gets reversed
In a galvanic cell the electron flow from	Anode to cathode through the solution	Cathode to anode through the solution	Anode to cathode through the external circuit	Cathode to anode through the external circuit

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In the electrolyte cell, flow of electron is from	Cathode to anode in solution	Cathode to anode through external supply	Cathode to anode through internal supply	Anode to cathode through internal supply
In the standard notation for a voltaic cell, the double vertical line "||" represents:	a phase boundary	gas electrode	a wire (metal) connection	a salt bridge