MDCAT Chemistry Chapter 8 Thermo-chemistry and Energetics of chemical reactions Online Test

Sr	Questions	Answers Choice
1	SHE acts as anode when connected with Cu electrode but act as cathode with Zn electrode	A. Zn has less reduction potential than hydrogen and Cu B. Zn has high reductionl potential than hydrogen and Cu C. Zn is below electrochemical series than hydrogen and Cu D. Zn has least tendency to lose electron
2	Rusting of iron metal Fe occurs when Fe gets converted into Fe2O3 What happen with Fe?	A. F'e is neutralized B. Fe is sublimed C. Fe is reduced D. Fe is oxidized
3	If Cl2 is passed through hot NaOH. NaClO3 is formed and the oxidation number of Cl changes from	A. -1 to 0 B. 0 to +5 C. 0 to-1 D. 0 to +1
4	Which of following is oxidation state of oxygen in peroxides?	A. -2 B. 1/2 C. -1 D. +2
5	The electrolyte used in fuel cell is	A. KOH B. NaCl(aq) C. NaNO3 D. Molten NaCl
6	On ascending the electrochemical series strength as reducing agent	A. Increases B. Decreases C. Remains same D. not determinable
7	The reduction potentials of non-metals are A =+0.54V, B=+1.08V, C=+1.36V. D= +2.87V Which non -metal can displace all other from aqucous solution of their salts	A. A B. C C. B D. D
8	Coinage metals Cu, Ag and Au are the least reactive because they have	A. Negative reduction potential B. Negative oxidation potential C. Positive reduction potential D. Positive oxidation potential
9	In voltaic cell a saht bridge is used in order to	A. Pass the electric current B. Prevent the flow of ions C. Mix solutions of two half cells D. Allow movement of' ions between two cells
10	Total number of valence electrons in CH4	A. 8 B. 9 C. 10 D. 12
11	The oxidation state of carbon in $C_2O_4^{-2}$ is	A. +4 B. -4 C. +3 D. +2
12	Stronger is the oxidizing agent, stronger is the	A. emf of cell B. Oxidation potential C. Reduction potential D. Reduction potential
13	The standard reduction potential of Zinc is	A. 0.76V B. 0.34 C. -0.34V D. -0.76V
		A. Anode is negatively charged

14	Which of the following statements is not correct about galvanic cell?	B. Cathode is positively charged C. Reduction occurs at anode D. Reduction occurs at cathode
15	Which of the following molecules has angel of 120°	A. BeCl2 B. BF3 C. CH4 D. NH3
16	The element with highest E°red	A. N B. F C. O D. Cl
17	During space flights, astronauts ohlained water from	A. Nickel cadmium cells B. Lead accumulator C. Fuel Cell D. Alkaline battery
18	The value of oxidation number of chlorine in HClOs is	A. +7 B. +5 C. -1 D. +3
19	Which of the following best describes the shape and polarity of the carbon disulphide molecule?	A. Bent and polar B. Linear and non-polar C. Pyramidal and polar D. Bent and non-polar
20	If a strip of Cu metal is placed in a solution of FeSO4	A. Cu will be deposited B. Cu and Fe both dissolve C. Fe is precipitated out D. No reaction take place
21	The standard electrode potential of hydrogen is arbitrarily taken at 298k is	A. 1.00volt B. 0.10 volt C. 0.00 volt D. 10.0 volt
22	Which of the following bonds is not present in NH4CL	A. Ionic bond B. Covalent bond C. Co-ordinate covalent bond D. De-localized covalent bond
23	In all oxidation reactions, atoms of an element in a chemical species lose electrons and increases their	A. Oxidation states B. Reduction states C. Electrode D. Negative charges
24	In which molecule. all atoms are coplanar?	A. CH4 B. BF3 C. NH3 D. PH3
25	Which of the following is an application of electrochemical series	A. Prediction of the feasibility of chemical reaction B. Calculation of the cell voltage C. Prediction of reaction of metal with dilute acid D. All of the above
26	The cell which converts electrical energy to chemical energy is called	A. Electrochemical cell B. Voltaic cell C. Galvanic cell D. Down's cell
27	The potential difference set up at 25 C and 1 atm when clectrode is dipped m Tis one molar ionic sohution is called	A. Single electrode potential B. electrode potential C. Standard electrode potential D. Standard hydrogen electrode
28	The potential of SHE is taken as zero which is avalue	A. Reference B. Arbitrary C. Exact D. Experimental
29	The element which has greatest value of Reduction potential is used as	A. Strongest reducing agent B. Weak oxidizing and strong reducing agent C. Strongest oxidizing agent D. None of these
30	The products of electrolysis of which of the followings are known	A. Fused electrolyte B. Aqueous solution of eleetrolyte C. Solid electrolyte D. Solid metal
		A. High negative reduction potential B. Low negative reduction potential

31	Only those metals can replace Hydrogen from dilute acids, which have	B. Low negative reduction potential C. High positive reduction potential D. low positive reduction potential
32	When a metal rod is dipped in its one molar ionie solution	A. Electricity is produced B. Electricity is consumed C. Redox reaction occurs D. Potential difference is set up
33	During the electrolysis of Fused NaCl, the products are	A. Na and H2 B. Na and Cl2 C. Na and O2 D. H2 and Cl2
34	In SO_4^{-2} the oxidation number of sulphur is	A. -8 B. -6 C. +8 D. +6
35	Which of the following metal does not liberate hydrogen on reaction with acid?	A. Mg B. Pt C. Zn D. Ca
36	Which one of the following elements is the strongest reducing agent?	A. Chlorine B. Sodium C. Magnesium D. Aluminium
37	The emf produced by galvanic cell is called	A. Cell potential B. Oxidation potential C. Redox potential D. Reduction potential
38	The electrochemical series is based on	A. pH scale B. Redox scale C. Hdrogen scale D. Arrhenius scale
39	Coinage metals Cu. Ag, and Au are the least reactive because they have	A. Negative reduction potential B. Positive reduction potential C. Negative oxidation potential D. Positive oxidation potential
40	By the electrolysis of CuCl2 using inert electrodes of platinum which species is deposited at cathode	A. H2 B. O2 C. Cu D. Cl
41	Most reactive among the following	A. Li B. Mg C. Ca D. Na
42	Stronger the oxidizing agent, higher is	A. Redox potential B. Standard reduction potential C. Reduction potential D. _{Oxidation potemial}
43	Which molecule is least ionic"	A. NaCl B. HCL C. HF D. CsF
44	Which of the following salts would give the same products irrespective of whether its molten form or concentrated aqueous solution is electrolysed?	A. Magnesium bromide B. Magnesium sulphate C. Copper sulphate D. Copper chloride
45	In an electrochemical series, elements are arranged on the basis of	A. pH scale B. pKa scale C. pOH scale D. Hydrogen scale
46	Geometry of NH3 is	A. ^{Tetrahedral} B. Square planer C. Pyramidal D. Linear
47	The reaction which is responsible for the production of electricity in the voltaic cell is	A. Hydrolysis B. Oxidation C. Reduction D. Redox
48	The working condition/s for SHE	A. 1atm pressure B. 1M H-solution C. 298K temperature D. All of these
		A. Zn^{2+} ion is a powerful oxidising

49	Zinc reacts with dilute acids to liberate hydrogen. This is because:	A. Zn2+ ion is a powerful oxidising agent than H' ion B. H+ ion is a powerful oxidising agent than Zn ion C. Zn2+ ion is a powerful reducing agent than H' ion D. H+' ion is a powerful reducing agent than Zn- ian
50	Which one of the following metals can replace the Copper from aqueous solution of its salt more easily?	A. Cd B. Fe C. Zn D. Na
51	Electrolytic products of dilute aqueous solution of sodium sulphate is	A. Na. SO2 B. H2. S02 C. Na. O2 D. H2,O2
52	In MgCl2, the oxidation state ofCI is	A. Zero B. -2 C. +2 D. -1
53	The common oxidation number of halogens is	A. -1 B. +1 C. -2 D. 0
54	Molten lead and iead (II) bromide both conduct electricity. Which one of the following statements relating to this is true?	A. Both undergo chemical change when they conduct B. Both conduct by the movement of charge particles C. Both will also conduct in the solid state D. Both contain mobile electrons
55	During oxidation process, oxidation number of an element	A. Decreases B. Increases C. Remains constant D. Both a and b
56	The electrochemical reactions occurring at both the electrodes along with the electrolytic conduction constitute	A. Oxidation B. reduction C. Redox reaction D. electrolysis
57	If a salt bridge is removed from two half cells the emf is	A. Increased B. Decreased C. Dropped to zero D. Electrodes will be reversed