MDCAT Chemistry Online Test

Sr	Questions	Answers Choice
1	Which one is a non-polar compound?	A. SnCl2 B. PH3 C. Gecl4 D. H2O
2	The no. of lp's on oxygen in CO are	A. 1 B. 3 C. 4 D. 2
3	A molecule that has polar bonds but is overall non - polar	A. IF B. CCl4 C. PCl3 D. All
4	In a group, the atomic radii from top to bottom	A. increase B. decrease C. don't change D. show variable trend
5	In a period the atomic radii	A. increase B. decrease C. remain same D. first increase, then decreased
6	The ionization energy	A. generally increases from left to right in a period B. increases from top to bottom in a group C. does not change in a period D. does not change in a group
7	Octet rule is not allowed in the formation of	A. NF3 B. B.CF4 C. CCl4 D. PCl5
8	what is the exact value of angle in BF3	A. 90 B. 104.51 C. 119.5 D. 120°
9	pi-bond can be formed by sideways overlap of	A. s-orbital B. d-orbital C. p-orbital D. sp orbital
10	Total number of valence electrons in phosphonium ion (PH4-) is	A. 8 B. 9 C. 12 D. 10
11	Elements of group IA and IIA are	A. electronegative B. neutral C. electropositive D. non-metals
12	Ionic bond is produced after complete transfer of	A. nucleus B. neutrons C. electrons D. protons
13	Elements having high ionization potential values are	A. metals B. non- metal C. liquids D. solid
14	Greater shielding effect corresponds to ionization potential value	A. greater B. lesser C. remain same D. no effect
15	Energy required to remove electron from an atom	A. Ionization potential B. Electronegativity C. Electropositivity

		D. Electron affinity
16	Covalent bonds are	A. directional B. Bidirectional C. Multidirectional D. Non directional
17	Bonding in MgO is an example of	A. Ionic bond B. Polar bond C. Covalent bond D. Coordination covalent bond
18	A covalent bond may be	A. 100% covalent B. Partial ionic C. 100% ionic D. Both a and b
19	Polarity of a molecule is expressed in terms of	A. Bond strength B. Dipole moment C. Bond length D. Shape
20	Carbon-Carbon double bond length in C3H6	A. 154 pm B. 134 pm C. 120 pm D. 105 pm
21	Geometry of simple molecule with sp2 hybridization	A. Triangular planar B. Trigonal C. Square planner D. Pyramidal
22	Which one of the followings has polar covalent bonds hut is overall nom-polar molecule:	A. HF B. CO₂ C. CH₄ D. N₂
23	Mostly ionic compounds are produced between elements of group	A. IA and IIA B. IB and VIB C. IA. IIA and VII-A D. IA and IB
24	Bond will be covalent when electronegativity difference of bonded atom is	A. Equal to 1.7 B. between 0.5 to I.7 C. Greater to 1.7 D. zero
25	Energy of atom in compound is	A. Higher than individual atom B. Lower than individual atom C. equal to individual atom D. Impossible to predict
26	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
27	Total number of valence electrons in CH4	A. 8 B. 9 C. 10 D. 12
28	In which molecule. all atoms are coplanar?	A. CH4 B. BF3 C. NH3 D. PH3
29	Which molecule is least ionic"	A. NaCl B. HCL C. HF D. CsF
30	Geometry of NH3 is	A. ^{Tetrahedral} B. Square planer C. Pyramidal D. Linear
31	Most reactive among the following	A. Li B. Mg C. Ca D. Na
32	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
		A. BeCl2 B. BF3

33	Which of the following molecules has angel of 120°	B. BF_3 C. CH_4 D. NH_3
34	The electrolyte used in fuel cell is	A. KOH B. NaCl(aq) C. $NaNO_3$ D. Molten NaCl
35	During space flights, astronauts ohlained water from	A. Nickel cadmium cells B. Lead accumulator C. Fuel Cell D. Alkaline battery
36	Rusting of iron metal Fe occurs when Fe gets converted into Fe_2O_3 What happen with Fe?	A. F'e is neutralized B. Fe is sublimed C. Fe is reduced D. Fe is oxidized
37	Which one of the following elements is the strongest reducing agent?	A. Chlorine B. Sodium C. Magnesium D. Aluminium
38	Which of the following metal does not liberate hydrogen on reaction with acid?	A. Mg B. Pt C. Zn D. Ca
39	Stronger is the oxidizing agent, stronger is the	A. emf of cell B. Oxidation potential C. Reduction potential D. Reduction potential
40	During oxidation process, oxidation number of an element	A. Decreases B. Increases C. Remains constant D. Both a and b
41	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
42	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
43	In an electrochemical series, elements are arranged on the basis of	A. pH scale B. pKa scale C. pOH scale D. Hydrogen scale
44	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
45	The value of oxidation number of chlorine in $HClO_3$ is	A. +7 B. +5 C. -1 D. +3
46	The oxidation state of carbon in $C_2O_4^{-2}$ is	A. +4 B. -4 C. +3 D. +2
47	The common oxidation number of halogens is	A. -1 B. +1 C. -2 D. 0
48	In SO_4^{-2} the oxidation number of sulphur is	A. -8 B. -6 C. +8 D. +6
49	In $MgCl_2$, the oxidation state ofCI is	A. Zero B. -2 C. +2 D. -1
50	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

51	The reaction which is responsible for the production of electricity in the voltaic cell is	A. Hydrolysis B. Oxidation C. Reduction D. Redox
52	The element with highest E°red	A. N B. F C. O D. Cl
53	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
54	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
55	The electrochemical series is based on	A. pH scale B. Redox scale C. Hdrogen scale D. Arrhenius scale
56	The potential of SHE is taken as zero which is avalue	A. Reference B. Arbitrary C. Exact D. Experimental
57	The working condition/s for SHE	A. 1atm pressure B. 1M H-solution C. 298K temperature D. All of these
58	The electrochemical reactions occurring at both the electrodes along with the electrolytic conduction constitute	A. Oxidation B. reduction C. Redox reaction D. electrolysis
59	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
60	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