APS& C KHANEWAL

SUBJECT: CHEMISTRY **Class:XI**

MCQs

Q: 1 Encircle the correct option A/B/C/D .Each part carries one mark.

1.	Densities of diamond and graphite are 3.5 and 2.3 gram respectively increase in the pressure on the equilibrium	Favour backward reaction	Favour forward reaction	Have no effect	Increases reaction rate
2.	Buffer solution are used **except**.	Clinical analysis	Nutrition	Soil science	Qualitative analysis
3.	Buffer action can be explained **except.**	Common ion effect	Le-Chatlier's principle	Low of mass action	Solubility product
4.	If the concentration of salt is greater than the acid in buffer Solution then the .	pH = pka	pH = pkb	pH >pk	pH>pkb
5.	The Solubility product increase with increase in.	Energy	Temperature	Pressure	Volume
6.	The Solubility products expression for tin(II)hydroxide is.	$[Sn^{+2}][OH^{-}]$}	$[Sn^{+2}]^2[OH^{-}]$	$[Sn^{+2}][OH]^{-2}$	$[Sn^{+2}][OH^{-}]^3$
7.	For reaction 2NO2↔2NO+O2 Kc=1.8x10-6 at 185°C, the value of Kc for reaction is.	0.9 x 106	7.5 x 102	1.95 x 10-3	1.95 x 103
8.	On applying pressure to equilibrium. ice ↔water. which phenomena will happen?	More ice will be formed	More water will be formed	Equilibrium will not be disturbed	Water well evaporate
9.	Consider the following reversible reaction. In a 3.00 liter container, the following amounts are found in equilibrium at 400 oC: 0.0420 mole N2, 0.516 mole H2 and 0.0357 mole NH3. Evaluate Kc. N2(g) + 3H2(g) ⇄ 2NH3(g)	0.202	1.99	16.0	4.94
10.	In which manner, the increase of the pressure will affect the following equilibrium? C(s) + H2O (g) ⇌ CO (g) + H2 (g)	Shifts in the forward direction	Shifts in the reverse direction	Increase the yield of hydrogen	No effect
11.	In which of the following equilibrium, change in the volume of the system does not alter the number of moles?	N2 (g) + O2 (g) ⇌ 2NO (g)	PCl5 (g) ⇌ PCl3 (g) + Cl2 (g)	N2(g) + 3H2⇌ 2NH3 (g)	H2(g)+I2⇌ 2HI(g)
12.	Which of the following indicates that the	The	Product	Reactant	Reactio

	value of KC is very small?	reaction is at start	concentration is maximum	concentration is minimum	n is completed
13.	The solubility of Ca3(PO4)2 in water is y mol/L. Its solubility product is:	$6y^2$	36 y4	64 y5	108 y5
14.	When NH4Cl is added to NH4OH solution the dissociation of ammonium hydroxide is reduced. It is due to:	Common ion effect	Hydrolysis	Oxidation	Reduction
15.	Which of following aqueous solution will have highest pH?	NaCl	CH3COONa	Na2CO3	NH4Cl
16.	What is pH of 0.01 M Solution of barium hydroxide [Ba(OH)2]	11.31	11.7	13.30	None of these
17.	Which of following oxides is not expected to react with NaOH?	CaO	SiO2	BeO	B2O3
18.	What is the conjugate acid of NH2 ?	NH3	NH4OH	NH4+	NH2-
19.	Which of following both act as Bronsted acid and Bronsted base?	HCO3-	Na2CO3	OH-	NH3
20.	Which of following does not form acidic salt?	Phosphoric acid	Carbonic acid	Hydrochloric acid	Sulphuric acid
21.	The pH of solution ofHCl is 4. The molarity of solution is	4M	0.4M	0.0001M	0.01M
22.	The substance that reduce the effectiveness of a catalyst are called	Promoters	Poisoning catalysts	Inhibitors	Pro catalyst
23.	Anything which increases the rate of a reaction without being involved in the reaction is	Promoters	Catalyst	Inhibitors	All of above
24.	Energy required to form transition state is called	Ea	P.E	Transition energy	K.E
25.	Energy of reactant higher than energy of product favours	Endothermic	Exothermic	Moderate reaction	No reaction
26.	Activated complex is formed due to	Pressure	Effective collision	Ineffective collision	Temperature
27.	The rate of Constant of zero order reaction has the unit	S-1	Mol L-1s-1	L2 Mol-2s-1	L mol-1s-1
28.	In the Haber Process for the manufacture	Platinized	Iron with molybdenu	Cooper	Alumina

	of Ammonia the following catalyst is used	Asbestos	m as a promoter	Oxide	
29.	The reaction2NO2 + CO→NO +CO2 takes place in two steps, Find the rate law, 2NO2 →NO +NO3 slow step. NO3+CO →NO2+CO2 fast step	R=k[NO2]3	R=k[NO3][CO]	R=k[NO2]	R=k[NO2]2
30.	X + Y → Z [X] | [Y] | Rate 1.0 | 1.0 | 0.25 2.0 | 1.0 | 0.50 1.0 | 2.0 | 0.25 1.0 | 3.0 | 0.25 Which of the following is the rate equation?	Rate = K[X][Y]	Rate = K[X][Y]0	Rate = K[X]0 [Y]1	Rate = K [X][Y]2
31.	The slope of the Arrhenius equation can be represented as:	Ea/2.303RT	-Ea/2.303RT	-Ea/2.303R	Ea/RT
32.	The rate expression of a reaction is “Rate = K [A] [B]. What happens to rate of reaction if ‘A’ and ‘B’ concentration is doubled? Rate of reaction	Increased six times	Increased four times	Doubled	Increased eight times
33.	Decomposition of Ozone take place according to the following equation to the following equation: 2O3⟶ 3O2 Rate equation for the reaction is Rate K = [O3]2 [O] -1What is the order of the reaction?	3	zero	negative	1
34.	Rate of reaction is slow at ordinary temperature because: All reactions are endothermic	All reactions are exothermic	All reactions are endothermic	Ea is low at low temperature	At low temperature rate of effective collision is low

35.	The bond formation always	Absorbs energy	No change in energy	Releases energy	Adsorbs energy
36.	$CaCO3 \rightarrow CaO + CO2$ identify the system	CaCO3	CaO	CO2	CaCO3, CaO,CO2
37.	Emission of rays from radioactive element are called	Exothermic reaction	Spontaneous reactions	Non spontaneous reactions	Neutralization reaction
38.	In order to ensure faster passage of heat through food, use materials with:	High heat capacity	Low heat capacity	Medium heat capacity	Constant heat capacity
39.	Heat of neutralisation of strong acid and strong base is a constant value because	Salt form does not hydrolyse	Only H+ and OH- react in any case	Strong acid and strong base react completely	Strong acid and strong base react in aqueous solution
40.	$2Al(s) + Fe2O3(s) \rightarrow Al2O3(s) + 2Fe$ The above equation represents:	ΔHf	ΔHc	$\Delta Hatm$	ΔHr
41.	$NH4Cl(s) + H2O \rightarrow$ $NH4+ + Cl-$ The above equation represents	$\Delta Hsol$	$\Delta Hatm$	ΔHc	ΔHf
42.	ΔHf for an element in its standard state is	1	2	0	3
43.	One mole of glucose provides 2818.8 k J energy. What is the energy produced by 1 gram of glucose	15.65 kJ	15.61 kJ	51.65 kJ	15.62 kJ
44.	In energy cycle diagram for any reaction the downward arrow represents ΔH	+ive	-ive	Zero	Both A and B
45.	We can measure energy available from glucose by determining its heat of	Neutralisation	formation	combustion	Atomization
46.	An Alkene upon Ozonolysis yield a mixture of Acetone and Acetaldehyde.	Isobutylene	But-2-ene	2-Methyl	Pent-2-

	The Alkene is			But-2-ene	ene
47.	Dehydrohalogenation of Alkyl Halide is carried out in the prescence of	Zinc Dust	Conc.H2SO4	Alc.KOH	Aq.KOH
48.	Ethyne is acidic in nature because of :	Sp Hybridization	dsp Hybridization	Sp3 Hybridization	Sp2 Hybridization
49.	Which of the type of Alcohol needs more con.H2SO4 and High temperature for Dehydration:	Primary Alcohol	Secondary Alcohol	Tertiary Alcohol	None
50.	1-Chlorobutane on reaction with alcoholic Potassium hydroxide gives:	1-Butene	2-Butene	1-Butanol	2-Butanol
51.	Preparation of vegetable ghee involves:	Saponification	Esterification	Hydrogenation	Hydroxylation
52.	The type of isomerization shown by dimethyl ether is:	Position isomerism	Tautomerism	Metamerism	Cis trans isomerism
53.	Propanone is produced by the hydration of:	Ethene	Acetylene	Propyne	Propane
54.	Which of the following is most reactive:	Benzene	Ethane	Ethyne	Ethene
55.	In which of the following compounds sulphonation can be easily carried out:	Nitrobenzene	Benzene	Phenol	Benzaldehyde
56.	Position of Double bond in Alkenes can be identified by:	Bromine Water	Ozonolysis	Ammonical Silver Nitrate Solution	None of these
57.	How many functional groups are present in the formula CH3CHOHCH2OCH2COOCH3	1	4	2	3
58.	The following functional group is present in both aldehyde and ketone:	Carbonyl	Hydroxyl	Oxyboron	Carboxyl
59.	Carbon has unique ability to form long chain by bonding with other carbon atoms. This property of self linking in carbon is known as:	Condensation	Cyclization	Polymerization	Catenation
60.	In Carbocation the carbon atom bearing the positive charge:	sp3 Hybridized	dsp2 Hybridized	sp Hybridized	sp2 Hybridized
61.	Which of the following will undergo nucleophilic addition reaction more easily:	Aldehyde	Alkene	Aldehyde & ketone	All of above

62.	When alcohol is added to aldehyde, _____ is produced.	Acetals	Ketals	Carboxylic acids	Imine
63.	Propanal and propanone are example of;	Geometrical isomerism	Metamerism	Tautomeris m	Functional group isomerism
64.	Which of the following alkyne would not yield a ketone upon hydration?	Acetylene	Propyne	But-1-yne	But-2-yne
65.	IUPAC name of acetone is	Ethanone	Propanone	Ethanal	Ethanoic acid
66.	Which of the following is example of mild oxidizing agents?	Potassium permanganate	Potassium dichromate	Silver oxide	Nitric acid
67.	What color of Iodoform is	White	Yellow	Black	Blue
68.	Which of the following is the other name of ethanedioic acid?	Oxalic acid	Lactic acid	Malonic acid	Succinic acid
69.	$CH_3COOH + CH_3CH_2OH \rightleftharpoons Y + X$ what will the compound Y?	Ester	Ether	Andydride	Alcohol
70.	$CH_3COOH + PCl_5 \longrightarrow CH_3COCl + HCl + POCl_3$ Which of the following nucleophile which attack the carbon atom of acetic acid?	OH-	Cl-	P-	H-