



Reg. Office & Corp. Office : CG Tower, A-46 & 52, IPIA, Near City Mall, Jhalawar Road, Kota (Raj.) - 324005 **Ph. No.:** +91-744-2777777, 2777700 | **FAX No.:** +91-022-39167222

To Know more : sms RESO at 56677 | Website : www.resonance.ac.in | E-mail : contact@resonance.ac.in | CIN : U80302RJ2007PLC024029 Toll Free : 1800 258 5555 S 7340010333 🛉 facebook.com/ResonanceEdu 🛂 twitter.com/ResonanceEdu



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70.		Match List I with List II:		
		List I (Reagents used)	List II (Compound with Funct	ional
			grou <mark>p de</mark> tected)	
			Re Res	
	Α.	Alkaline solution of copper	Но	
		sulphate and sodium citrate	Deltar tomorrow	
			Resonance' Res	
	B.	Neutral FeCl ₃ solution	II. 1	
			СНО	
	C.	Alkaline chloroform solution		
			A A COH	
	D.	Potassium iodide and sodium	IV. I J	
		hypochlorite		
	Chor	nypochione	ons given below:	
	(1) A	-III B-IV C-I D-II	sha given below.	
	(1) A			
	(3) A			
	(4) A	-III. B-IV. C-II. D-I		
Ans.		(4)		
Sol.	CuS	O_4 /sodium tartarate \rightarrow Fehling solut	ion used to identify aldehyde function	nal group.
	Sodi	$\frac{1}{100}$ um hypochlorite \rightarrow Used to find out	compound showing haloform test pos	sitively.
	Neut	tral FeCl ₃ \rightarrow Use to identify Phenol &	Derivative.	
	СНС	$H_{2}/KOH \rightarrow React with 1^{\circ} amine and the second second$	this is known as carbyl amine test.	
			, , , , , , , , , , , , , , , , , , ,	
71 . R	Whic	ch of the following complex is octahe	dral, diamagnetic and the most stable	e?
	(1) [0			
	(2) K	[3[Co(CN)6]		
	(3) [1	Ni(NH3)6]Cl2		
	(4) N	la3[CoCl6]		
Ans.	NTA	. (2)		
Sol.	K₃[C	o(CN) ₆] \longrightarrow diamagnetic, d ² sp ³ &	most stable.	

Resonance Eduventures Ltd.

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72.	Choose the halogen which is most reactive towards SN1 reaction in the given compo	ounds (A, B, C & D)
	and Br(a) is a contract of the barrow contrac	
	A. Senance Lesphance	
	Br _(b) a Resonance Resona	
	B. I (a) I (b) Sonance Resonance	
	e Resonance' Resona	
	C. $Br_{(a)}$ Me Br_{(b)}	
	D. $Br_{(b)}$	
	(1) $A - Br_{(b)}$; $B - I_{(b)}$; $C - Br_{(b)}$; $D - Br_{(b)}$	
	(2) $A - Br_{(b)}$; $B - I_{(a)}$; $C - Br_{(a)}$; $D - Br_{(a)}$	
	(3) $A - Br_{(a)}$; $B - I_{(a)}$; $C - Br_{(a)}$; $D - Br_{(a)}$	
Ans.	(4) $A = BI_{(a)}, B = I_{(a)}, C = BI_{(b)}, D = BI_{(a)}$ NTA (4)	
Sol.	The reactivity of halogen for SN' reaction depend upon stability of carbocation.	
73.	$2IO_3^- + xI^- + 12H^+ \longrightarrow 6I_2 + 6H_2O$	
	What is the value of x ?	
	(1) 6 (2) 12	
	(3) 10	
	(4) 2	
Ans.	NTA (3)	
Sol.	$2 IO_3^- + 10I^- + 12H^+ \longrightarrow 6I_2 + 6H_2O$	
74	The correct order of electronogetivity for given elements is :	
/4. Do	(1) $P > Br > C > At$	
	(2) $Br > P > At > C$	
	(3) $Br > C > At > P$	
	(4) C > P > At > Br Resonance Resonance Resonance Resonance	
Ans.	NTA (3)	
Sol.		
	Element C P Br At	
	Electronegativity 2.5 2.1 2.8 2.2	

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75	Match List Lwith Lie	et II.					
Res		Reso	nan ce" Resonance" Reso				
	A Saccharin	ncel	High potency sweetener				
	R Aspartame	ontionnow	First artificial sweetening agent				
Res	C Alitame	Reso	Stable at cooking temperature				
	D Sucralose		Unstable at cooking temperature				
Que	Choose the correct	answer fro	om the options given below:				
Educatio	(1) A-IV B-III C-I						
	(1) A-II B-IV C-I [)-III					
Res	(3) A-II, B-IV, C-III,	D-I					
Educatio	(4) A-II, B-III, C-IV,	D-1					
Ans.	NTA (2)						
Sol.	NCERT based fact	ual questio	n.				
76.	The water gas on r	eacting wit	h cobalt as a catalyst forms				
Education	(1) Ethanol	Ũ					
	(2) Methanoic acid						
Pos	(3) Methanal						
Educatio	(4) Methanol						
Ans.	NTA (4)						
Res	$CO(a) + 2H_{2}(a)$	Cobalt	HaOH(I)				
	CC(g) 1 21 2(g)	Catalyst					
7.Res	Match List I with Lis	st II:					
	List I		List II (Maximum allowed concentration				
	(Species)		in ppm in drinking water)				
Res	A. mar F-	I.	< 50 ppm				
	B. SO ₄ ^{2–}	nce ^{ll.}	< 5 ppm				
-	C. NO_2^-		< 2 ppm				
Reg	D Zn	IV	< 500 ppm				
	Choose the correct	answer fro	m the options given below:				
Rea	(1) A-I, B-II, C-III, D-IV						
Educatio	(2) A-IV, B-III, C-II, D-I						
	(3 <mark>) A-I</mark> I, B-I. C-III. D)-IV					
Das	(4) A-III, B-II, C-I, D)-IV					
Ane							

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82. Ans.	0.5 g of an organic compound (X) with 60% carbon will produce x 10 ⁻ g of CO ₂ on complet combustion. NTA (11)
Sol.	$60 = \frac{12}{44} \times \frac{\text{wt.of CO}_2}{0.5} \times 100$
	wt. of CO ₂ = $\frac{60 \times 44 \times 0.5}{12 \times 100} = 1.1$
83.	 The number of given statements which is/are correct is
Ans.	 energy. (D) It there is no correlation between the temperature and the rate constant then it means that the reaction has negative activation energy. NTA (2)
Reso	
Sol.	$\frac{1}{K} \cdot \left(\frac{dK}{dT}\right) = \frac{Ea}{RT^2}$ Ans. (A, B)
84. Ans. Sol.	The number of following factors which affect the percent covalent character of the ionic bond is(A) Polarising power of cation(B) Extent of distortion of anion(C) Polarisability of the anion(D) Polarising power of anionNTA (3)Fajan's rule.
85.	The titration curve of weak acid vs. strong base with phenolphthalein as indictor) is shown below. The $K_{phenolphthalein} = 4 \times 10^{-10}$. Given : log2 = 0.3
	12 -
	$H_{a}^{12} \xrightarrow{10}{5} \xrightarrow{10}{10} \xrightarrow{15}{20} \xrightarrow{25}{25} \xrightarrow{10}{V_{NaOH}} = H_{a}^{12} \xrightarrow{10}{10} \xrightarrow{10}{15} \xrightarrow{20}{25} \xrightarrow{10}{10} \xrightarrow{10}$
	$I_{A} = \begin{pmatrix} 12 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $
Re	It can be used as an indicator for the titration of weak acid with weak base. B. It begins to change colour at pH = 8.4 C. It is a weak organic base D. It is colourless in acidic medium

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