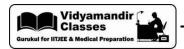


Date Planned : / /	Daily Tutorial Sheet-1	Expected Duration : 90 Min		
Actual Date of Attempt : / /	JEE Main Archive	Exact Duration :		

								_	
1.	A met	al M readily forn	ns its su	ılphate MSO ₄ wl	hich is w	ater soluble. I	t forms its	MO which be	comes iner
	on he	on heating. It forms an insoluble hydroxide $M(OH)_2$ which is soluble in NaOH solution. Then M is:							
	(A)	Mg	(B)	Ba	(C)	Ca	(D)	Ве	(2002)
2 .	KO ₂ (potassium super	oxide) i	s used in oxygen	cylinder	s space and si	ubmarines	because it:	(2002)
	(A)	absorbs CO_2 and increases O_2 content							
	(B)	eliminates mo		_					
	(C)	absorbs CO_2							
	(D)	produces ozor	ne						
3.	Severa	Several blocks of magnesium are fixed to the bottom of a ship to:							
	(A)	keep away the	sharks		(B)	make the sh	ip lighter		
	(C)	prevent action	of wate	r and salt	(D)	prevent pun	cturing by	under-sea rocl	ζS
4.	In cur	In curing cement plasters water is sprinkled from time to time. This helps in :							(2003)
	(A)	(A) keeping it cool							
	(B)	B) developing interlocking needle-like crystals of hydrated silicates							
	(C)	hydrating san	d and gi	ravel mixed with	cement				
	(D)	converting sar	nd into s	silicic acid					
5.	The so	The solubilities of carbonates decrease down the magnesium group due to a decrease in :							(2003)
	(A)	lattice energies of solids			(B)	hydration er			
	(C)	inter-ionic att	raction		(D)	entropy of so	olution for	mation	
6.	The s	The substance not likely to contain $CaCO_3$ is:							(2003)
	(A) a	marble statue	(B)	calcined gypsum	(C)	sea shells	(D)	dolomite	
7.	Beryll	Beryllium and aluminium exhibit many properties which are similar. But, the two elements differ							fer in :
	(A)	exhibiting max	ximum o	covalency in comp	ounds				(2004)
	(B)	forming polymeric hydrides							
	(C)	(C) forming covalent halides							
	(D)	(D) exhibiting amphoteric nature in their oxides							
8.	One n	One mole of magnesium nitride on the reaction with an excess of water gives :							
	(A)	one mole of ammonia			(B)	one mole of			
	(C)	two moles of a	mmonia	ı	(D)	two moles of	nitric acio	l	
9.	The ionic mobility of alkali metal ions in aqueous solution is maximum for :							(2006)	
	(A)	K^+	(B)	$\mathrm{Rb}^{\scriptscriptstyle +}$	(C)	Li ⁺	(D)	Na ⁺	
10.	The se	et representing tl	he corre	ct order of ionic r	adius is	:			(2009)
	(A)	$\mathrm{Li}^+ > \mathrm{Be}^{2+} > \mathrm{N}$	$\mathrm{Ma}^+ > \mathrm{Mg}$	5 ²⁺	(B)	$Na^+ > Li^+ >$	$Mg^{2+} > Be$	2+	
	(C)	$Li^+ > Na^+ > M$	$g^{2+} > Be$	e ²⁺	(D)	$Mg^{2+} > Be^{2+}$	$> Li^+ > Ni$	a^{+}	



11.	Which of the following on thermal decomposition yields a basic as well as an acidic oxide?							(2012)	
	(A)	KClO ₃	(B)	$CaCO_3$	(C)	$\mathrm{NH_4NO_3}$	(D)	$NaNO_3$	
12.	The metal that can not be obtained by electrolysis of an aqueous solution of its salt is :								(2014)
	(A)	Cr	(B)	Ag	(C)	Ca	(D)	Cu	
13.	In which of the following reaction H_2O_2 acts as a reducing agent ?								(2014)
	I.	$H_2O_2 + 2H^+ + 2$	$H_2O_2 + 2H^+ + 2e^- \longrightarrow 2H_2O$ II. $H_2O_2 - 2e^- \longrightarrow O_2 + 2H^+$				2H ⁺		
	$\mathbf{III.} \qquad \mathrm{H_2O_2} + 2\mathrm{e^-} \longrightarrow 2\mathrm{OH}^-$		_	IV.	$H_2O_2 + 2OH^-$	\longrightarrow O ₂ +2H ₂ O			
	(A)	I and II	(B)	III and IV	(C)	I and III	(D)	II and IV	
14.	Which one of the following alkaline earth metal sulphates has its hydration enthalpy greater								than its
	lattice enthalpy?							(2015)	
	(A)	$CaSO_4$	(B)	BeSO_4	(C)	${ m BaSO_4}$	(D)	$SrSO_4$	
15.	Which physical property of dihydrogen is wrong?								(2015)
	(A)	Colourless gas			(B)	Odourless gas			
	(C)	Tasteless gas			(D)	Non-inflammab	le gas		