

Date Planned://_ Actual Date of Attempt://_				Da	Daily Tutorial Sheet-2 JEE Advanced Archive			Expected Duration : 90 Min Exact Duration :				
				JEE								
6.	Sodiu	m when burnt	in excess o	f oxygen gives	s sodium o	oxide. Is it true	or false ?		(1987)			
7.	The m	Γhe metallic lustre exhibited by sodium metal is explained by :										
	(A)	diffusion of s		(B)	Oscillation of loose electron		ectron					
	(C)	excitation of	ıs	(D)	existence of body centred cubic latt			e				
18.	A solution of sodium sulphate in water is electrolysed using inert electrodes. The products at cathode as											
	anode	are respective	ly.		(\odot	(1987)			
	(A)	$\mathrm{H}_2,\mathrm{O}_2$	(B)	$\mathrm{O}_2,\mathrm{H}_2$	(C)	O ₂ , Na	(D)	O_2 , SO_2				
	Sodiu	m sulphate is s	soluble in w	ater, whereas	s barium s	sulphate is spar	ingly solu	uble because :	(1989)			
	(A)											
	(B)											
	(C)	(C) the lattice energy has no role to play in solubility										
	(D)	the hydratio	n energy of	sodium sulpl	hate is les	s than its lattic	e energy					
١.	When zeolite, which is hydrated sodium aluminium silicate, is treated with hard water, the sodium ions											
	are exchanged with:							(1990)				
	(A)	H ⁺ ions	(B)	Ca ²⁺ ions	(C)	SO_4^{2-} ions	(D)	Mg^{2+} ions				
		vidation atota	of the me						DoO with			
•		The oxidation state of the most electronegative element in the products of the reaction, BaO ₂ with										
		SO ₄ are:							(1991)			
	(A)	0 and -1	(B)	-1 and -2	(C)	–2 and 0	(D)	–2 and –1				
	Arran	ge the following	g in increas	ing order of b	asic stren	gth: MgO, SrO	, K ₂ O, Ni	$O, CsO_2.$	(1991)			
	Comp	lete and balan	nced the fo	llowing chem	ical react	ion Anhydrous	s notassi	um nitrate is h	neated with			
•	_	s of metallic po		_		•	э рошоог	(<u>)</u>	(1992)			
		_		_		• • • • • • • • • • • • • • • • • • • •		\sim				
.		pecies that do r		-					(1992)			
	(A)	PbO_2	(B)	H_2O_2	(C)	SrO_2	(D)	BaO_2				
•	The m	aterial used in	solar cells	contains :					(1993)			
	(A)	Cs	(B)	Si	(C)	Sn	(D)	Ti				
3 .	Statement-I : The alkali metals can form ionic hydrides which contain the hydride ion, H ⁻ . (1994)											
	State							conduct electr	ricity wher			
				ate hydrogen			-		-			
	(A)	Statement-I	is True.	Statement-II	is True	and Statemer	nt-II is a	a correct expla	nation for			

(B)

(C)

(D)

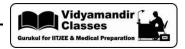
Statement-I

Statement-I

Statement-I is True, Statement-II is False

Statement-I is False, Statement-II is True

Statement-I is True, Statement-II is True and Statement-II is NOT a correct explanation for



 $S_2O_8^{2-}, H_2$

27 .	A dilute aqueous solution of	$\mathrm{Na}_2\mathrm{SO}_4$	is electrolysed	using platinum	electrodes.	The products	at the
	anode and cathode are respect	ively:				(1996)

(C)

(A) O_2 , H_2 **(B)** $S_2O_8^{2-}$, Na

()

Hydrolysis of one mole of peroxodisulphuric acid produces :

(1996)

- (A) two moles of sulphuric acid
- **(B)** two moles of peroxomono sulphuric acid
- (C) one mole of sulphuric acid and one mole of peroxomono sulphuric acid
- (D) one mole of sulphuric acid, one mole of peroxomono sulphuric acid and one mole of hydrogen peroxide.
- **29.** The following compounds have been arranged in order of their increasing thermal stabilities. Identify the correct order: (1996)

 \mathbf{I} . $\mathbf{K}_2\mathbf{CO}_3$

28.

I. $MgCO_3$

III. CaCO₃

IV.

(D)

 $BeCO_3$

(A) I < II < III < IV (B)

IV < II < III < I (C)

IV < II < I < III (D)

O₂, Na

II < IV < III < I

A and an alkaline solution. The solution on exposure to air produces a thin solid layer of B on the surface. Identify the compounds A and B. (1996)