Daily Tutorial Sheet-7	Level-2

86.(D) All the given statements are true.

87.(D) $YBa_2\overset{*}{Cu}_nO_7 \Rightarrow 3+2(2)+n(1)-7(2)=0 \Rightarrow n=7$

88. (D) Here, statement-1 is false, because stannous chloride is a strong reducing agent not strong oxidising agent. Stannous chlorides gives Grey precipitate with mercuric chloride. Hence, statement-2 is true.

89. (A) Both assertion and reason are true and reason is the correct explanation of assertion.
Maximum oxidation state of S is +6, it cannot exceed it. Therefore it can't be further oxidized.

90.(BCD)

Ba_2XeO_6	$4+x-12=0$	$\Rightarrow$	$x=8$
XeO_3	$x-6=0$	$\Rightarrow$	$x=6$
CrO_5 (peroxy linkage)	$x-4-2=0$	$\Rightarrow$	$x=6$
SO_2Cl_2	$x-4-2=0$	$\Rightarrow$	$x=6$

91.(B) $\overset{+2}{S_2}O_3^{2-} \longrightarrow \overset{+6}{SO_4^{2-}} \Rightarrow E=\frac{M}{8}$

92.(C) $\overset{+1}{ClO^-} \longrightarrow Cl^{-1}$ reduction ; $\overset{+1}{ClO^-} \longrightarrow \overset{+5}{ClO_3^-}$ oxidation

Equivalent mass of ClO^- is $\frac{3M}{4}$.

93.(C) $As_2O_3 + \overset{\text{n-factor = 5}}{MnO_4^-} \longrightarrow 2AsO_4^{3-} + Mn^{2+}$
(As_2O_3: n-factor = 4)

Let, molarity of $KMnO_4$ solution be M

$\therefore$ Eqnivalents of As_2O_3 = Eq. of $KMnO_4$ solution

$\frac{0.1097}{198}\times 4 = \frac{26.10\times M\times 5}{1000}$ (Equivalent weight $As_2O_3 = \frac{198}{4}$)

Molarity = $0.017M \approx 0.018$

94.(C) $40\times 0.246\times 8 = V\times 0.154\times 3$ (Meq. of $S_2O_3^{2-}$ = Meq. of CrO_4^{2-})

$\therefore$ $V = 170.4\,mL$

95.(A)

	$Al_2(SO_4)_3$	+ $BaCl_2$	$\longrightarrow$ $BaSO_4\downarrow$	+ $AlCl_3$
Initial Meq.	$20\times 0.2\times 6 = 24$	$20\times 0.6\times 2 = 24$	0	0
Final Meq.	0	0	24	24

$[Al^{3+}] = \frac{24}{40\times 3} = 0.2\ M$