

Date Planned : __ / __ / __	Daily Tutorial Sheet - 7	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level - 2	Exact Duration : _____

86. $O(g) + 2e^- \rightarrow O^{2-}(g)$; $\Delta H_{eg} = 744.7 \text{ kJ / mole}$. The positive value of ΔH_{eg} is due to : ▶
- (A) energy is released to add on $1e^-$ to O^- (B) energy is required to add on $1e^-$ to O^-
 (C) energy is needed to add on $1e^-$ to O (D) None of the above is correct
- *87. Consider the order $O^{2-} < F^- < Na^+ < Mg^{2+}$. Then correct statement(s) is/are: ▶
- (A) Increasing order of Z_{eff} (B) Increasing order of size
 (C) Increasing order of I.E. (D) Increasing order of E.A.
88. How does the energy gap between successive energy levels in an atom vary from low to high 'n' values?
 (A) All energy gaps are the same
 (B) The energy gap decreases as n increases
 (C) The energy gap increases as n increases
 (D) The energy gap changes unpredictably as n increases
89. Which of the following properties of the alkaline earth metals increases from Be to Ba? ▶
- (i) Atomic radius (ii) Ionisation energy (iii) Nuclear charge
 (A) (i) and (ii) (B) (i) and (iii) (C) (ii) and (iii) (D) (i), (ii) and (iii)
90. What would be the atomic number of the last member of the halogen group? ▶
- (A) 115 (B) 119 (C) 117 (D) 121
91. Which ionisation potential (IP) in the following equations atom experience the greatest amount of energy ? ▶
- (A) $K^+ \rightarrow K^{2+} + e^-$ (B) $Li^+ \rightarrow Li^{2+} + e^-$
 (C) $Fe \rightarrow Fe^+ + e^-$ (D) $Ca^+ \rightarrow Ca^{2+} + e^-$
92. In which of the following pair, both the species are isoelectronic but the first one is larger in size than the second? ▶
- (A) S^{2-}, O^{2-} (B) Cl^-, S^{2-} (C) F^-, Na^+ (D) N^{3-}, P^{3-}
93. The correct order of ionic size of $N^{3-}, Na^+, F^-, Mg^{2+}$ and O^{2-} is : ▶
- (A) $Mg^{2+} > Na^+ > F^- > O^{2-} < N^{3-}$ (B) $N^{3-} < F^- > O^{2-} > Na^+ > Mg^{2+}$
 (C) $Mg^{2+} < Na^+ < F^- < O^{2-} < N^{3-}$ (D) $N^{3-} > O^{2-} > F^- > Na^+ < Mg^{2+}$
- *94. Which of the following statements are correct? ▶
- (A) F is the most electronegative and Cs is the most electropositive element
 (B) The ionization energy of halogens decreases from F to I
 (C) The electron affinity of Cl is higher than that of F though their electronegativities are in the reverse order
 (D) The electronegativity of noble gases is almost zero
95. Which of the following is the wrong statement?
- (A) All the actinide elements are radioactive
 (B) Alkali and alkaline earth metals are s-block elements
 (C) Chalcogens and halogens are p-block elements
 (D) The first member of the lanthanide series is lanthanum