Daily Tutorial Sheet-6	Level - 2

76.(A) I.E. of A = E.A. of A^+

$$\left.\begin{array}{ll} A(g) \longrightarrow A^+(g) + e^- & IE \\ A^+(g) + e^- \longrightarrow A(g) & EA \end{array}\right] \text{Both are opposite to each other}$$

77.(AD) Ionization enthalpy in the energy required in joule to remove an electron and electron gain enthalpy is the energy released in joule to accept on electron.

Electronegativity is a relative term to attract the shared pair of electron and metallic character is the chemical property associated with metal that how easily it can lose their electron.

78.(C) Representative elements $\Rightarrow$ elements of s & p block.

Write electronic configuration & if last e^- goes in s/p orbital. It is a representative element.

79.(C) Decreasing size of ion is gaseous state

$Na^+ > Mg^{2+} > Al^{3+}$

Higher is the positive charge, lower is the size in isoelectronic species

$\Rightarrow$ Increasing size of ions in gaseous state

$F^{\ominus} < O^{2-} < N^{3-}$

Higher is the negative charge, larger is the size in isoelectronic species

$\Rightarrow$ Decreasing order of electron affinity

$O > O^- > O^{2-}$

More is the charge, lower is the zeff, lower is electron affinity.

$\Rightarrow$ Increasing order of $I.E_2$

$N < F < O$

$O^+ \longrightarrow 2s^2 2p^3$

$F^+ \longrightarrow 2s^2 2p^4$

$N^+ \longrightarrow 2s^2 2p^2$

Half filled electronic configuration is extra stable.

80.(A) $I.E._3 > I.E._2 > I.E._1$

81.(B) Along the period, I.E increases (generally) as Z_{eff} increases

Down the group, I.E. decreases as size increases

82. (C) I.E of $Li^+ > O^+$ due to more Z_{eff} in case of Li^+.

83.(C) Li → Mg, Be → Al, B → Si Show diagonal similarity.

84.(ABC) ΔH_1, ΔH_2 and ΔH_3 are negative whereas ΔH_4, is positive.

85.(A) Only atomic number 33 has unpaired 4p electrons.