

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

- The correct order of second ionization potential of carbon, nitrogen oxygen and fluorine is: **(1981)**
 (A) $C > N > O > F$ (B) $O > N > F > C$
 (C) $O > F > N > C$ (D) $F > O > N > C$
- The element with the highest first ionization potential is: **(1982)**
 (A) boron (B) carbon
 (C) nitrogen (D) oxygen
- The correct order of radii is: **(2000)**
 (A) $N < Be < B$ (B) $F^- < O^{2-} < N^{3-}$
 (C) $Na < Li < K$ (D) $Fe^{3+} < Fe^{2+} < Fe^{4+}$
- The first ionization potential of Na is 5.1 eV. The value of electron gain enthalpy of Na^+ will be: **(2013)**
 (A) -2.55 eV (B) -5.1 eV
 (C) -10.2 eV (D) +2.55 eV
- Which of the following represent the correct order of increasing IE_1 for Ca, Ba, S, Se and Ar? **(2013)**
 (A) $S < Se < Ca < Ba < Ar$ (B) $Ba < Ca < Se < S < Ar$
 (C) $Ca < Ba < S < Se < Ar$ (D) $Ca < S < Ba < Se < Ar$
- The ionic radii (in Å) of N^{3-} , O^{2-} and F^- respectively are: **(2015)**
 (A) 1.36, 1.40 and 1.71 (B) 1.36, 1.71 and 1.40
 (C) 1.71, 1.40 and 1.36 (D) 1.71, 1.36 and 1.40
- Which one has the highest boiling point? **(2015)**
 (A) He (B) Ne (C) Kr (D) Xe
- Statement I :** Nitrogen and oxygen are the main components in the atmosphere but these do not react to form oxides of nitrogen. **(2015)**
Statement II : The reaction between nitrogen and oxygen requires high temperature.
 (A) Both Statement I and Statement II are correct; Statement II is the correct explanation of Statement I
 (B) Both Statement I and Statement II are correct; Statement II is not the correct explanation of Statement I
 (C) Statement I is correct; Statement II is the incorrect
 (D) Statement I is incorrect; Statement II is the correct
- The isoelectronic set of ions is: **(2019)**
 (A) N^{3-}, O^{2-}, F^- and Na^+ (B) Li^+, Na^+, O^{2-} and F^-
 (C) N^{3-}, Li^+, Mg^{2+} and O^{2-} (D) F^-, Li^+, Na^+ and Mg^{2+}

10. The element having greatest difference between its first and second ionization energies, is: (2019)
 (A) Sc (B) Ca (C) Ba (D) K
11. The size of the iso-electronic species Cl^- , Ar and Ca^{2+} is affected by : (2019)
 (A) Nuclear charge
 (B) Principal quantum number of valence shell
 (C) Azimuthal quantum number of valence shell
 (D) Electron-electron interaction in the outer orbitals
12. In comparison to boron, beryllium has : (2019)
 (A) greater nuclear charge and lesser first ionization enthalpy
 (B) greater nuclear charge and greater first ionization enthalpy
 (C) lesser nuclear charge and greater first ionization enthalpy
 (D) lesser nuclear charge and lesser first ionization enthalpy
13. The IUPAC symbol for the element with atomic number 119 would be: (2019)
 (A) unh (B) uun (C) uue (D) une