

Date Planned : __ / __ / __	Daily Tutorial Sheet – 11	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Numerical Value Type for JEE Main	Exact Duration : _____

- 126.** An element with atomic number 20 is placed in which period of the periodic table?
- 127.** Highest group valency of halogens with respect to oxygen is _____. ▶
- 128.** What is the group of the element having atomic number 34?
- 129.** If the energy needed to remove the 1st, 2nd and 3rd valence electron from an atom is V, 2V and 3V then the energy required to remove all three in one step will be xV. What is numerical value of x ?
- 130.** The element having atomic number $Z = 107$ and $Z = 109$ have been made recently, element $Z = 108$ has not yet been made. Indicate the group number in which you will place the above element.
- 131.** The number of valence shell electrons of the most electronegative element is _____.
- 132.** The number of electrons for Zn^{2+} cation that have the value of azimuthal quantum number = 0 is:
- 133.** What is the maximum possible value of valency of an element ? ▶
- 134.** Consider the following orders: ▶
- (i) $\text{HF} > \text{HCl} > \text{HBr} > \text{HI}$: Acidic strength
 - (ii) $\text{CH}_4 < \text{CCl}_4 > \text{CF}_4$: Electronegativity of central 'C'-atom
 - (iii) $\text{Mg}^{2+} < \text{K}^+ < \text{S}^{2-} < \text{Se}^{2-}$: Ionic radius
 - (iv) $\text{Ni} > \text{Pd} > \text{Pt}$: Ionisation energy
 - (v) $\text{As}^{5+} > \text{Sb}^{5+} > \text{Bi}^{5+}$: Stable oxidation state
 - (vi) $\text{Li}^+ < \text{Mg}^{2+} < \text{Al}^{3+}$: Hydration energy
 - (vii) $\text{Cl} > \text{Br} > \text{F} > \text{I}$: Electron affinity
- How many of these are correct orders?
- 135.** Find out total number of representative elements in the given elements:
Cd, Nb, Ta, Te, Ra, Mo, Po, Pd, Tc
- 136.** An element 'X' has its electronic configuration of 'K' shell as $(n-5)s^2$ and it has total number of electrons in its outermost, penultimate and antepenultimate shell are 2, 8 and 25 respectively, then find out total number of unpaired electrons in element 'X' in their ground state. ▶
- 137.** If value of spin quantum number(s) = $-1/2, 0, +1/2$ then find out number of elements in first period in the new form of periodic table if all other rules of electronic configurations remain same. ▶
- 138.** How many pairs are, in which first species has lower ionization energy than second species:
- (i) N and O (ii) Br and K (iii) Be and B (iv) I and I^-
 - (v) Li and Li^+ (vi) O and S (vii) Ba and Sr