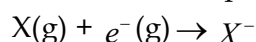


- 61 (2) Chalcogens are oxygen family elements i.e., group 16 elements.
- 62 (1) Atomic number of 43 is known as the name of technetium and the element, which is just above the technetium atom is manganese (Mn) atomic number = 25 Electronic configuration of Mn = $1s^2, 2s^2 2p^6, 3s^2 3p^6 3d^5 4s^2$
- 63 (1) A. $52 \rightarrow ns^2 np^{1-6} (p\text{-block})$
 B. $56 \rightarrow ns^{1-2} (s\text{-block})$
 C. $57 \rightarrow (n-1)d^{1-10} ns^{1-2} (d\text{-block})$
 D. $60 \rightarrow (n-2)f^{1-14} (n-1)d^{0-1} ns^2 (f\text{-block})$
- 64 (2) Metallic Character decreases as the electropositive character decreases
- 65 (4) Electron gain enthalpy provides a measure of the ease with which an atom adds an electron to form anion as represented by.



Electron gain enthalpy = electron gain energy

- 66 (4)
- 67 (4) Electropositivity (EN) $\propto \frac{1}{\text{Metallic properties}}$ En decreases down a group is accompanied by a decrease in non metallic properties of elements.
- 68 (1) Atomic radii increase down the group while decrease from left to right in a period. So, $Ca > Mg > P > Cl$ is order of decreasing atomic radii
- 69 (2) In case of isoelectronic species ionic radii decrease as number of protons increases.

	O^{2-}	F^-	Na^+	Mg^{2+}	
	↓	↓	↓	↓	
No. of electrons	10	10	10	10	→ Isoelectronic
number of protons	8	9	11	12	

- 70 (2) The normal oxide formed by the elements present on the extreme left of Periodic Table is the most basic e.g. Na_2O whereas that formed by the elements present on extreme right to the Periodic Table is the most acidic.
 e.g. Cl_2O_7