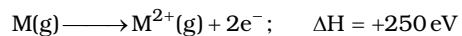
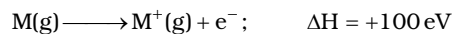


Date Planned : __ / __ / __	Daily Tutorial Sheet - 10	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level - 2	Exact Duration : _____

- 116.** The electron affinity of the following elements can be arranged: ▶
- (A) $\text{Cl} > \text{O} > \text{N} > \text{C}$ (B) $\text{Cl} > \text{O} > \text{C} > \text{N}$
(C) $\text{Cl} > \text{N} > \text{C} > \text{O}$ (D) $\text{Cl} > \text{C} > \text{O} > \text{N}$
- 117.** In which of the following arrangements, the order is not correct according to the property indicated against it? ▶
- (A) Increasing size: $\text{Al}^{3+} < \text{Mg}^{2+} < \text{Na}^+ < \text{F}^-$
(B) Increasing I.E.₁: $\text{B} < \text{C} < \text{N} < \text{O}$
(C) Increasing E.A.₁: $\text{I} < \text{Br} < \text{F} < \text{Cl}$
(D) Increasing metallic radius: $\text{Li} < \text{Na} < \text{K} < \text{Rb}$
- *118.** Which of the following statements is/are wrong? ▶
- (A) van der Waals' radius of iodine is more than its covalent radius
(B) All isoelectronic ions belong to same period of the periodic table
(C) I.E.₁ of N is higher than that of O while I.E.₂ of O is higher than that of N
(D) The electron affinity of N is almost zero while that of P is 74.3 kJ mol^{-1}
- *119.** Stability of ions of Ge, Sn and Pb will be in the order : ▶
- (A) $\text{Ge}^{2+} < \text{Sn}^{2+} < \text{Pb}^{2+}$ (B) $\text{Ge}^{4+} > \text{Sn}^{4+} > \text{Pb}^{4+}$
(C) $\text{Sn}^{4+} > \text{Sn}^{2+}$ (D) $\text{Pb}^{2+} > \text{Pb}^{4+}$
- *120.** Select the incorrect statement(s)/order(s): ▶
- (A) d-orbital can accommodate 10 electrons
(B) $\text{Na} \xrightarrow{\text{I.E.}_1} \text{Na}^+ \xrightarrow{\text{I.E.}_2} \text{Na}^{2+} \xrightarrow{\text{I.E.}_3} \text{Na}^{3+}$, order of successive I.E. is $\text{I.E.}_1 < \text{I.E.}_2 > \text{I.E.}_3$
(C) Number of unpaired electrons in Co^{2+} cation > Number of unpaired electrons in Co^{3+} cation
(D) First ionisation energy of Pt is greater than that of Pd
- 121.** In the compound $\text{M} - \text{O} - \text{H}$, the $\text{M} - \text{O}$ bond will be broken if: ▶
- (A) $\Delta (\text{E.N.})$ of M and O < $\Delta (\text{E.N.})$ of O and H
(B) $\Delta (\text{E.N.})$ of M and O = $\Delta (\text{E.N.})$ of O and H
(C) $\Delta (\text{E.N.})$ of M and O > $\Delta (\text{E.N.})$ of O and H
(D) Cannot be predicted according to difference in E.N.
- 122.** Aqueous solutions of two compounds $\text{M}_1 - \text{O} - \text{H}$ and $\text{M}_2 - \text{O} - \text{H}$ are prepared in two different beakers. If, the electronegativity of $\text{M}_1 = 3.4$, $\text{M}_2 = 1.2$, $\text{O} = 3.5$ and $\text{H} = 2.1$, then the nature of two solutions will be respectively: $\text{M}_1 = 3.4$, $\text{M}_2 = 1.2$, $\text{O} = 3.5$ ▶
- (A) acidic, basic (B) acidic, acidic
(C) basic, acidic (D) basic, basic

***123.** Consider the following ionization steps:



Select correct statement(s):

- | | |
|---|---|
| <p>(A) I.E.₁ of M(g) is 100 eV</p> <p>(C) I.E.₂ of M(g) is 250 eV</p> | <p>(B) I.E.₁ of M⁺(g) is 150 eV</p> <p>(D) I.E.₂ of M(g) is 150 eV</p> |
|---|---|

124. Consider the following statements:



- (I) The radius of an anion is larger than that of the parent atom.
- (II) The ionization energy generally increases with increasing atomic number in a period.
- (III) The electronegativity of an element is the tendency of an isolated atom to attract an electron.

Which of the above statements is/are correct?

- (A)** I alone **(B)** II alone **(C)** I and II **(D)** II and III

125. Which of the following order is correct for the property mentioned in brackets?



- | | |
|---|---|
| <p>(A) $S^{2-} > Cl^- > K^+ > Ca^{2+}$</p> <p>(B) $C < N < F < O$</p> <p>(C) $B > Al > Ga > In < Tl$</p> <p>(D) $Na^+ > Li^+ > Mg^{2+} > Be^{2+} > Al^{3+}$</p> | <p>(Ionisation energy)</p> <p>(2nd Ionisation energy)</p> <p>(Electronegativity)</p> <p>(Ionic radius)</p> |
|---|---|