

Date Planned : __ / __ / __	Daily Tutorial Sheet - 6	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level - 2	Exact Duration : _____

76. Ionization potential of Na would be numerically the same as (compare magnitude only) :
- (A) electron affinity of Na^+ (B) electronegativity of Na^+
 (C) electron affinity of Na (D) ionization potential of Mg
- *77. Which of the following have no unit ? ▶
- (A) Electronegativity (B) Electron gain enthalpy
 (C) Ionisation enthalpy (D) Metallic character
78. Which of the following sequence represents atomic number of only representative elements?
- (A) 55, 12, 48, 53 (B) 13, 33, 45, 83
 (C) 3, 33, 53, 87 (D) 22, 33, 55, 66
79. Match the various sequences with the appropriate orders : ▶
- | Sequence | Order |
|--|--|
| I. $\text{Na}^+ \text{Mg}^{2+} \text{Al}^{3+}$ | (a) increasing size of ion in gaseous state |
| II. $\text{F}^- \text{O}^{2-} \text{N}^{3-}$ | (b) decreasing size of ion in gaseous state |
| III. $\text{OO}^- \text{O}^{2-}$ | (c) increasing size of ions in gaseous state |
| IV. $\text{NFO}(\text{IE}_2)$ | (d) decreasing size of ions in gaseous state |
| | (e) increasing order of IE_2 |
| | (f) decreasing order of electron affinity |
| (A) I-(b), II-(c), III-(e), IV-(f) | (B) I-(c), II-(b), III-(a), IV-(f) |
| (C) I-(b), II-(c), III-(f), IV-(e) | (D) I-(d), II-(c), III-(a), IV-(e) |
80. A neutral atom (Ar) is converted to (Ar^{3+}) by the following process ▶
- $$\text{Ar} \xrightarrow[-e]{E_1} \text{Ar}^+ \xrightarrow[-e]{E_2} \text{Ar}^{2+} \xrightarrow[-e]{E_3} \text{Ar}^{3+}$$
- The CORRECT order of E_1 , E_2 and E_3 energies is :
- (A) $\text{IE}_3 > \text{IE}_2 > \text{IE}_1$ (B) $E_1 < E_2 < E_3$
 (C) $E_1 = E_2 = E_3$ (D) $E_1 > E_2 > E_3$
81. Which of the following elements has the least ionization potential?
- (A) Lithium (B) Cesium
 (C) Magnesium (D) Calcium
82. Incorrect order of ionisation energy is: ▶
- (A) $\text{Pb}(\text{I.E.}) > \text{Sn}(\text{I.E.})$ (B) $\text{Na}^+(\text{I.E.}) > \text{Mg}^+(\text{I.E.})$
 (C) $\text{Li}^+(\text{I.E.}) < \text{O}^+(\text{I.E.})$ (D) $\text{Be}^+(\text{I.E.}) < \text{C}^+(\text{I.E.})$

83. Select which is CORRECT representation for diagonal relationships in periodic table.

(A)

IA	IIA	IIIA	IVA
Li	Be	B	C
Na	Mg	Al	Si

(B)

IA	IIA	IIIA	IVA
Na	Mg	Al	Si
K	Ca	Ga	Ge

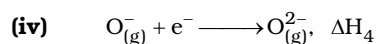
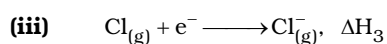
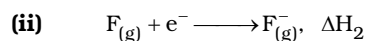
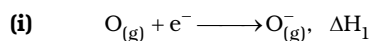
(C)

IA	IIA	IIIA	IVA
Li	Be	B	C
Na	Mg	Al	Si

(D)

IA	IIA	IIIA	IVA
Na	Mg	Al	Si
K	Ca	Sc	Ti

*84. Consider the following reactions:



Then according to given information the correct statement is/are:

(A) ΔH_3 is more negative than ΔH_1 and ΔH_2

(B) ΔH_1 is less negative than ΔH_2

(C) $\Delta H_1, \Delta H_2$ and ΔH_3 are negative whereas ΔH_4 is positive

(D) ΔH_1 and ΔH_3 are negative whereas ΔH_2 and ΔH_4 are positive

85. Which is the atomic number of the element with the maximum number of unpaired 4p electrons?

(A) 33

(B) 26

(C) 23

(D) 15