



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

SOLUTION-31(CLASS-11)

TOPIC- PERIODIC PROPERTIES

SUBTOPIC-BASIC CONCEPT



SUBJECT – CHEMISTRY

DURATION – 30 mins

F.M. - 15

DATE -10.08.20

1. Find the successive elements of the periodic table with ionisation energies, 2372, 520 and 890 kJ per mol respectively

- (a) Li, Be, B
- (b) H, He, Li
- (c) B, C, N
- (d) He, Li, Be

Ans. (d)

2. In the modern periodic table, the number of period of the element is the same as

- (a) principal quantum number
- (b) atomic number
- (c) azimuthal quantum number
- (d) atomic mass

Ans. (a)

3. The correct order for the size of I, I⁺, I⁻ is

- (a) $I > I^- > I^+$
- (b) $I > I^+ > I^-$
- (c) $I^- > I > I^+$
- (d) $I^+ > I^- > I$

Ans. (c)

4. For the same value of n, the penetration power of orbital follows the order

- (a) $s = p = d = f$
- (b) $p > s > d > f$
- (c) $f < d < p < s$
- (d) $s < p < d < f$

Ans. (c)

5. Which of the reactions will need the maximum amount of energy?

- (a) $\text{Na} \rightarrow \text{Na}^+ + e^-$
- (b) $\text{Ca}^+ \rightarrow \text{Ca}^{++} + e^-$
- (c) $\text{K}^+ \rightarrow \text{K}^{++} + e^-$



Ans. (c)

6. Which of the following statements is incorrect?

- (a) I.E.₁ of O is lower than that of N but I.E.₂ O is higher than that of N
- (b) The enthalpy of N to gain an electron is almost zero but of P is 74.3 kJ mol⁻¹
- (c) isoelectronic ions belong to the same period
- (d) The covalent radius of iodine is less than its Van der Waal's radius

Ans. (c)

7. The correct order of electronegativity is

- (a) Cl > F > O > Br
- (b) F > O > Cl > Br
- (c) F > Cl > Br > O
- (d) O > F > Cl > Br

Ans. (b)

8. Two different beakers contain M₁-O-H, and M₂-O-H solutions separately. Find the nature of the two solutions if the electronegativity of M₁ = 3.4, M₂ = 1.2, O = 3.5, H = 2.1

- (a) Acidic, acidic
- (b) Basic, acidic
- (c) Basic, basic
- (d) Acidic, basic

Ans. (d)

9. Which one is the most acidic among these?

- (a) MgO
- (b) CaO
- (c) Al₂O₃
- (d) Na₂O

Ans. (c)

10. Which one will have the highest 2nd ionisation energy?

- (a) $1s^2 2s^2 2p^6 3s^1$
- (b) $1s^2 2s^2 2p^4$
- (c) $1s^2 2s^2 2p^6$
- (d) $1s^2 2s^2 2p^6 3s^2$

Ans. (a)

11. Elements in the same vertical group of the periodic table have same

- (a) Number of valence electrons
- (b) Atomic number

- (c) Atomic mass
- (d) Atomic volume

Ans. (a)

12. An element having a low value of ionization energy and low value of electron affinity is likely to belong to

- (a) Group IA
- (b) Group IB
- (c) Group VIIA
- (d) Group VIII

Ans. (a)

13. Which of the following always increases on going from top to bottom in a group?

- (a) Metallic character
- (b) Electronegativity
- (c) Oxidizing power
- (d) The tendency to get reduced

Ans. (a)

14. Which of the p-block elements are not representative elements?

- (a) Alkali metals (I-A)
- (b) Group-14 elements (IV-A)
- (c) Group-18 elements (VII-A)
- (d) Halogens (VII-A)

Ans. (c)

15. Among halogens, the highest boiling point is shown by-

- (a) Fluorine
- (b) Chlorine
- (c) Bromine
- (d) Iodine

Ans. (d)

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