

Model Question Paper
Periodic Classification - II - Part II

12th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use Blue pen only.

Time : 01:00:00 Hrs

Total Marks : 45

5 x 1 = 5

Section-A

- 1) Among the following which has the maximum ionisation energy
(a) Alkali elements (b) Alkaline elements (c) Halogens (d) Noble gases
- 2) The electron affinity of an atom
(a) directly proportional to its size (b) inversely proportional to its size (c) is independent of its size (d) none of these
- 3) Among the following which has higher electron affinity value
(a) Fluorine (b) Chlorine (c) Bromine (d) Iodine
- 4) The scale which is based on an empirical relation between the energy of a bond and the electronegativities of bonded atoms is
(a) Pauling scale (b) Mulliken's scale (c) Sanderson's scale (d) Alfred and Rochow's scale
- 5) Electron affinity is expressed in
(a) K J (b) J (c) KJ mol (d) KJ mol⁻¹

Section-B

- 6) Which element of the following groups of elements has smallest ionisation energy? Justify your answer. a) Ca or Be b) Ca or K c) Cl or I d) Be, B, C
- 7) Answer the following questions a) Which element has the most positive value of electron affinity? b) Which element has low electronegativity?
- 8) Mention the disadvantage of Pauling's and Mulliken's electronegativity scale
- 9) Why EA of fluorine is less than that of chlorine?

4 x 3 = 12

Section-C

- 10) How is atomic radii calculated from covalent bond length?
- 11) Explain the variation of IE along the group and period.
- 12) Explain the various factors that affect electron affinity.
- 13) How electronegativity values help to find out the nature of bonding between atoms?
- 14) Explain the Pauling scale for the determination of electronegativity. Give the disadvantage of Pauling scale.
- 15) Explain Pauling's method to determine ionic radii.
- 16) Explain any three factors which affect the ionisation energy.
- 17) Explain the various factors that effect electron affinity.
- 18) How do electronegativity values help to find out the nature of bonding between atoms?
- 19) Explain how electronegativity values help to find out the percentage of ionic character in polar covalent bond.

10 x 5 = 50
