Electronegativity

1. Between HF, HCl, HBr and HI, HF has the highest ionic character because
(a) *F* has the highest electron affinity
(b) In HF, electronegativity difference is highest
(c) F^- ion has the highest value of ionic radius
(d) Atomic orbitals of *H* and *F* have almost similar energy

2. On going from right to left in a period in the periodic table the electronegativity of the elements
(a) Increases
(b) Decreases
(c) Remain unchanged
(d) Decreases first then increases

3. On Pauling scale which of the following does not have electronegativity ≥ 3.0
(a) Oxygen (b) Nitrogen
(c) Chlorine (d) Bromine

4. Which one of the following represents the electronic configuration of the most electropositive element
(a) $[He]2s^1$ (b) $[Xe]6s^1$
(c) $[He]2s^2$ (d) $[Xe]6s^2$

5. An atom with high electronegativity has
(a) Large size
(b) High ionisation potential
(c) Low electron affinity
(d) Low ionisation potential

6. Two elements whose electronegativities are 1.2 and 3.0 the bond formed between them would be
(a) Ionic (b) Covalent
(c) Coordinate (d) Metallic

7. The solubilities of carbonates decreases down the magnesium group due to a decrease in
(a) Lattice energies of solids
(b) Hydration energies of cations
(c) Inter-ionic attraction
(d) Entropy of solution formation

8. Which element has the highest electronegativity

or

Which of the following is the most electronegative
(a) *F* (b) *He*
(c) *Ne* (d) *Na*

9. Which element has the highest electronegativity
(a) *C* (b) *Mg*
(c) *O* (d) *S*

10. Keeping in view the periodic law and the periodic table suggest which of the

following elements should have the maximum electronegative character
(a) *P* (b) *As*
(c) *Bi* (d) *Sb*

11. The outermost electronic configuration of the most electronegative element is
(a) ns^2np^3 (b) ns^2np^4
(c) ns^2np^5 (d) ns^2np^6

12. Going from fluorine to chlorine, bromine and iodine, the electronegativity
(a) Increases
(b) Decreases
(c) First decreases then increases
(d) Changes randomly

13. Of the following elements, which one has highest electro-negativity
(a) *I* (b) *Br*
(c) *Cl* (d) *F*

14. Which of the following is most electronegative
(a) Carbon (b) Silicon
(c) Lead (d) Tin

15. The property of attracting electrons by the halogen atom in a molecule is called
(a) Ionisation potential
(b) Electron affinity
(c) Electronegativity
(d) Electronic attraction

16. In third row of periodic table from Na to Cl
(a) Electronegativity increases
(b) Electronegativity decreases
(c) Ionization energy decreases
(d) Atomic volume increases

17. Which of the following is the most electropositive element
(a) Aluminium (b) Magnesium
(c) Phosphorus (d) Sulphur

18. Which of the following sets of atoms is arranged in order of increasing electronegativity
(a) *S, Si, P* (b) *S, P, Si*
(c) *Si, P, S* (d) *Si, S, P*

19. Which of the following property displays progressive increase with the rise in atomic number across a period in the periodic table
(a) Electronegativity
(b) Electron affinity
(c) Ionization potential
(d) Size of the atom

20. With respect to chlorine, hydrogen will be
(a) Electropositive
(b) Electronegative
(c) Neutral
(d) None of the above

21. The correct order of electropositive nature of *Li*, *Na* and *K* is
(a) *Li* > *Na* > *K* (b) *Li* > *K* > *Na*
(c) *Na* > *K* > *Li* (d) *K* > *Na* > *Li*

22. Electronegativity is a measure of the capacity of an atom to
(a) Attract electrons
(b) Attract protons
(c) Repel electrons
(d) Repel protons

23. With increasing atomic number in a certain period
(a) The chemical reactivity decreases
(b) The chemical reactivity increases
(c) The electropositive character increases
(d) The electronegative character increases

24. Which of the following have maximum electronegativity
(a) *Al* (b) *S*
(c) *Si* (d) *P*

25. Which element has the lowest electronegativity
(a) *Li* (b) *F*
(c) *Fe* (d) *Cl*

26. The attraction that an atom exerts on a pair of electrons that are being shared between that atom and another atom to which it is bonded by a covalent bond is referred to as its
(a) Electron affinity
(b) Electronegativity
(c) Ionisation energy
(d) Valence

27. The electronegativity of the following elements increases in the order
(a) *C, N, Si, P* (b) *N, Si, C, P*
(c) *Si, P, C, N* (d) *P, Si, N, C*

28. Choose the correct statement
(a) Electronegativity increases down a group
(b) Electronegativity decreases down a group
(c) Electronegativity decreases from left to right along a period
(d) Electronegativity changes along a group but remains constant along a period

29. In C, N, O and F the electronegativity
(a) Decreases from carbon to fluorine
(b) Increases from carbon to fluorine
(c) Increases from carbon to oxygen and then decreases
(d) Decreases from carbon to oxygen and then increases

30. Which is the correct order of electronegativities

(a) $F > N < O > C$
(b) $F > N > O > C$
(c) $F < N < O < C$
(d) $F > N > O < C$

31. In the following, the element with the highest electropositivity is
(a) Copper (b) Caesium
(c) Barium (d) Chromium

32. Which one of the following has the highest electronegativity
(a) *Br* (b) *Cl*
(c) *P* (d) *Si*

33. Which or these have no unit
(a) Electronegativity
(b) Electron affinity
(c) Ionisation energy
(d) Excitation potential

34. The polarising ability of which one of the following is highest
(a) Small highly +ve ion
(b) Large +ve ion
(c) Small highly –ve ion
(d) Large –ve ion

35. Among Al_2O_3, SiO_2, P_2O_3 and SO_2 the correct order of acid strength is
(a) $Al_2O_3 < SiO_2 < SO_2 < P_2O_3$
(b) $SiO_2 < SO_2 < Al_2O_3 < P_2O_3$
(c) $SO_2 < P_2O_3 < SiO_2 < Al_2O_3$
(d) $Al_2O_3 < SiO_2 < P_2O_3 < SO_2$