3 Classification of Elements and Periodicity in Properties

Trend Analysis with Important Topics & Sub-Topics

		2020		2019		2018		2017		2016	
Topic Name	**Sub-Topic**	**QNS.**	**LOD**	**QNS.**	**LOD**	**QNS.**	**LOD**	**QNS.**	**LOD**	**QNS.**	**LOD**
Modern periodic table	modern periodic table	2	E					1	E		
	Electronic configuration					1	A				
Periodic trends in properties of elements	I.E/ionic,atomic size/electron gain enthalpy trend					1	A			1	A
	Ionisation enthalpy trend			1	A						
LOD - Level of Difficulty	E - Easy	A - Average				D - Difficult		Qns - No. of Questions			

Topic 1: Modern Periodic Table

1. Identify the incorrect match. ***[2020]***

Name	**IUPAC Official Name**
(A) Unnilunium	(i) Mendelevium
(B) Unniltrium	(ii) Lawrencium
(C) Unnilhexium	(iii) Seaborgium
(D) Unununnium	(iv) Darmstadtium

(a) (B), (ii) (b) (C), (iii)
(c) (D), (iv) (d) (A), (i)

2. Match the following : ***[2020]***

Oxide	**Nature**
(A) CO	(i) Basic
(B) BaO	(ii) Neutral
(C) Al_2O_3	(iii) Acidic
(D) Cl_2O_7	(iv) Amphoteric

Which of the following is correct option?

	(A)	**(B)**	**(C)**	**(D)**
(a)	(ii)	(i)	(iv)	(iii)
(b)	(iii)	(iv)	(i)	(ii)
(c)	(iv)	(iii)	(ii)	(i)
(d)	(i)	(ii)	(iii)	(iv)

3. The element $Z = 114$ has been discovered recently. It will belong to which of the following family/ group and electronic configuration ? ***[2017]***
(a) Carbon family, [Rn] $5f^{14}\ 6d^{10}\ 7s^2\ 7p^2$
(b) Oxygen family, [Rn] $5f^{14}\ 6d^{10}\ 7s^2\ 7p^4$
(c) Nitrogen family, [Rn] $5f^{14}\ 6d^{10}\ 7s^2\ 7p^6$
(d) Halogen family, [Rn] $5f^{14}\ 6d^{10}\ 7s^2\ 7p^5$

4. An atom has electronic configuration $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^3\ 4s^2$, you will place it in which group?
(a) Fifth (b) Fifteenth ***[2002]***
(c) Second (d) Third

5. The element, with atomic number 118, will be
(a) alkali (b) noble gas ***[1996]***
(c) lanthanide (d) transition element

6. The electronic configuration of an element is $1s^2 2s^2 2p^6 3s^2 3p^3$. What is the atomic number of the element, which is just below the above element in the periodic table? ***[1995]***
(a) 33 (b) 34
(c) 36 (d) 49

7. If the atomic number of an element is 33, it will be placed in the periodic table in the ***[1993]***
(a) First group (b) Third group
(c) Fifth group (d) Seventh group.

Topic 2: Periodic Trends in Properties of Elements

8. Match the oxide given in column A with its property given in column B *[NEET Odisha, 2019]*

Column-A	Column-B
(i) Na_2O	(A) Neutral
(ii) Al_2O_3	(B) Basic
(iii) N_2O	(C) Acidic
(iv) Cl_2O_7	(D) Amphoteric

Which of the following options has all correct pairs?
(a) (i)-(B), (ii)-(D), (iii)-(A), (iv)-(C)
(b) (i)-(B), (ii)-(A), (iii)-(D), (iv)-(C)
(c) (i)-(C), (ii)-(B), (iii)-(A), (iv)-(D)
(d) (i)-(A), (ii)-(D), (iii)-(B), (iv)-(C)

9. For the second period elements the correct increasing order of first ionisation enthalpy is : *[2019]*
(a) Li < Be < B < C < N < O < F < Ne
(b) Li < B < Be < C < O < N < F < Ne
(c) Li < B < Be < C < N < O < F < Ne
(d) Li < Be < B < C < O < N < F < Ne

10. The correct order of atomic radii in group 13 elements is *[2018]*
(a) B < Al < In < Ga < Tl
(b) B < Al < Ga < In < Tl
(c) B < Ga < Al < In < Tl
(d) B < Ga < Al < Tl < In

11. In which of the following options the order of arrangement does not agree with the variation of property indicated against it ? *[2016]*
(a) $Al^{3+} < Mg^{2+} < Na^{+} < F^{-}$ (increasing ionic size)
(b) B < C < N < O (increasing first ionisation enthalpy)
(c) I < Br < F < Cl (increasing electron gain enthalpy)
(d) Li < Na < K < Rb (increasing metallic radius)

12. The species Ar, K^+ and Ca^{2+} contain the same number of electrons. In which order do their radii increase ? *[2015]*
(a) $Ca^{2+} < Ar < K^{+}$ (b) $Ca^{2+} < K^{+} < Ar$
(c) $K^{+} < Ar < Ca^{2+}$ (d) $Ar < K^{+} < Ca^{2+}$

13. The formation of the oxide ion $O^{2-}(g)$, from oxygen atom requires first an exothermic and then an endothermic step as shown below :
$O(g) + e^{-} \rightarrow O^{-}(g)$; $\Delta_f H^{\ominus} = -141$ kJ mol^{-1}
$O^{-}(g) + e^{-} \rightarrow O^{2-}(g)$; $\Delta_f H^{\ominus} = +780$ kJ mol^{-1}
Thus process of formation of O^{2-} in gas phase is unfavourable even though O^{2-} is isoelectronic with neon. It is due to the fact that *[2015 RS]*
(a) Electron repulsion outweighs the stability gained by achieving noble gas configuration
(b) O^{-} ion has comparatively smaller size than oxygen atom (c) Oxygen is more electronegative (d) Addition of electron in oxygen results in larger size of the ion.

14. Which of the following orders of ionic radii is correctly represented ? *[2014]*
(a) $H^{-} > H^{+} > H$ (b) $Na^{+} > F^{-} > O^{2-}$
(c) $F^{-} > O^{2-} > Na^{+}$ (d) $Al^{3+} > Mg^{2+} > N^{3-}$

15. Which one of the following arrangements represents the correct order of least negative to most negative electron gain enthalpy for C, Ca, Al, F and O ? *[NEET Kar. 2013]*
(a) Ca < Al < C < O < F (b) Al < Ca < O < C < F
(c) Al < O < C < Ca < F (d) C < F < O < Al < Ca

16. Identify the wrong statement in the following: *[2012]*
(a) Amongst isoelectronic species, smaller the positive charge on the cation, smal-ler is the ionic radius.
(b) Amongst isoelectronic species, greater the negative charge on the anion, larger is the ionic radius.
(c) Atomic radius of the elements increases as one moves down the first group of the periodic table.
(d) Atomic radius of the elements decreases as one moves across from left to right in the 2nd period of the periodic table.

17. What is the value of electron gain enthalpy of Na^{+} if IE_1 of Na = 5.1 eV ? *[2011M]*
(a) –5.1 eV (b) –10.2 eV
(c) +2.55 eV (d) +10.2 eV

18. Among the elements Ca, Mg, P and Cl, the order of increasing atomic radii is : *[2010]*
(a) Ca < Mg < P < Cl (b) Mg < Ca < Cl < P
(c) Cl < P < Mg < Ca (d) P < Cl < Ca < Mg

19. Which of the following represents the correct order of increasing electron gain enthalpy with negative sign for the elements O, S, F and Cl ? *[2005, 2010]*
(a) Cl < S < O < F (b) O < S < F < Cl
(c) F < S < O < Cl (d) S < O < Cl < F

20. The correct order of the decreasing ionic radii among the following isoelectronic species is *[2010]*
(a) $Ca^{2+} > K^+ > S^{2-} > Cl^-$
(b) $Cl^- > S^{2-} > Ca^{2+} > K^+$
(c) $S^{2-} > Cl^- > K^+ > Ca^{2+}$
(d) $K^+ > Ca^{2+} > Cl^- > S^{2-}$

21. Amongst the elements with following electronic configurations, which one of them may have the highest ionization energy? *[2009]*
(a) Ne $[3s^2 3p^2]$ (b) Ar $[3d^{10} 4s^2 4p^3]$
(c) Ne $[3s^2 3p^1]$ (d) Ne $[3s^2 3p^3]$

22. The stability of + 1 oxidation state increases in the sequence: *[2009]*
(a) Tl < In < Ga < Al (b) In < Tl < Ga < Al
(c) Ga < In < Al < Tl (d) Al < Ga < In < Tl

23. Which one of the following ionic species has the greatest proton affinity to form stable compound?
(a) NH_2^- (b) F^- *[2007]*
(c) I^- (d) HS^-

24. Which of the following electronic configuration of an atom has the lowest ionisation enthalpy? *[2007]*
(a) $1s^2\ 2s^2\ 2p^3$ (b) $1s^2\ 2s^2\ 2p^5\ 3s^1$
(c) $1s^2\ 2s^2\ 2p^6$ (d) $1s^2\ 2s^2\ 2p^5$

25. Identify the correct order of the size of the following:
(a) $Ca^{2+} < K^+ < Ar < Cl^- < S^{2-}$ *[2007]*
(b) $Ar < Ca^{2+} < K^+ < Cl^- < S^{2-}$
(c) $Ca^{2+} < Ar < K^+ < Cl^- < S^{2-}$
(d) $Ca^{2+} < K^+ < Ar < S^{2-} < Cl^-$

26. Which one of the following oxides is expected to exhibit paramagnetic behaviour? *[2005]*
(a) CO_2 (b) SiO_2
(c) SO_2 (d) ClO_2

27. Ionic radii are *[2004]*
(a) inversely proportional to effective nuclear charge
(b) inversely proportional to square of effective nuclear charge
(c) directly proportional to effective nuclear charge
(d) directly proportional to square of effective nuclear charge

28. Among K, Ca, Fe and Zn, the element which can form more than one binary compound with chlorine is *[2004]*
(a) Fe (b) Zn
(c) K (d) Ca

29. Which of the following statements is true? *[2002]*
(a) Silicon exhibits 4 coordination number in its compound
(b) Bond energy of F_2 is less than Cl_2 (c) Mn(III) oxidation state is more stable than Mn(II) in aqueous state (d) Elements of 15th group shows only +3 and +5 oxidation states

30. Which of the following order is wrong? *[2002]*
(a) $NH_3 < PH_3 < AsH_3$ – Acidic (b) Li < Be < B < C – First IP (c) $Al_2O_3 < MgO < Na_2O < K_2O$ – Basic
(d) $Li^+ < Na^+ < K^+ < Cs^+$ – Ionic radius

31. Correct order of first IP among following elements Be, B, C, N, O is *[2001]*
(a) B < Be < C < O < N (b) B < Be < C < N < O
(c) Be < B < C < N < O (d) Be < B < C < O < N

32. Of the given electronic configurations for the elements, which electronic configuration indicates that there will be abnormally high difference in the second and third ionization energy for the element? *[1999]*
(a) $1s^2\ 2s^2\ 2p^6\ 3s^2$ (b) $1s^2\ 2s^2\ 2p^6\ 3s^1$
(c) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^1$ (d) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^2$

33. The first ionization potentials (eV) of Be and B respectively are *[1998]*
(a) 8.29, 9.32 (b) 9.32, 9.32
(c) 8.29, 8.29 (d) 9.32, 8.29 34.

Which of the following does not represent the correct order of the properties indicated *[1997]*
(a) $Ni^{2+} > Cr^{2+} > Fe^{2+} > Mn^{2+}$ (size)
(b) Sc > Ti > Cr > Mn (size)
(c) $Mn^{2+} > Ni^{2+} < Co^{2+} < Fe^{2+}$ (unpaired electron)

35. Which one of the following ions will be the smallest in size? *[1996]*
(a) Na^+ (b) Mg^{2+}
(c) F^- (d) O^{2-}

36. Among the following oxides, the one which is most basic is *[1994]*
(a) ZnO (b) MgO
(c) Al_2O_3 (d) N_2O_5

37. One of the characteristic properties of non-metals is that they *[1993]*
(a) Are reducing agents
(b) Form basic oxides
(c) Form cations by electron gain
(d) Are electronegative

38. Which electronic configuration of an element has abnormally high difference between second and third ionization energy? *[1993]*
(a) $1s^2, 2s^2, 2p^6, 3s^1$ (b) $1s^2, 2s^2, 2p^6, 3s^1 3p^1$
(c) $1s^2, 2s^2, 2p^6, 3s^2 3p^2$
(d) $1s^2, 2s^2, 2p^6, 3s^2$

39. In the periodic table from left to right in a period, the atomic volume *[1993]*
(a) Decreases (b) Increases (c) Remains same (d) First decrease then increases

40. Na^+, Mg^{++}, Al^{3+} and Si^{4+} are isoelectronic. The order of their ionic size is *[1993]*
(a) $Na^+ > Mg^{++} < Al^{3+} < Si^{4+}$
(b) $Na^+ < Mg^{++} > Al^{3+} > Si^{4+}$
(c) $Na^+ > Mg^{++} > Al^{3+} > Si^{4+}$
(d) $Na^+ < Mg^{++} > Al^{3+} < Si^{4+}$

41. One would expect proton to have very large *[1993]*
(a) Charge (b) Ionization potential
(c) Hydration energy (d) Radius.

42. Which of the following sets has strongest tendency to form anions ? *[1993]*
(a) Ga, In, Tl (b) Na, Mg, Al
(c) N, O, F (d) V, Cr, Mn

43. Elements of which of the following groups will form anions most readily ? *[1992]*
(a) Oxygen family (b) Nitrogen family
(c) Halogens (d) Alkali metals

44. In the periodic table, with the increase in atomic number, the metallic character of an element *[1989]*
(a) Decreases in a period and increases in a group
(b) Increases in a period and decreases in a group
(c) Increases both in a period and the group
(d) Decreases in a period and the group.

45. The electronic configuration of four elements are given below. Which element does not belong to the same family as others ? *[1989]*
(a) $[Xe]4f^{14}5d^{10}1s^2$ (b) $[Kr]4d^{10}5s^2$
(c) $[Ne]3s^23p^5$ (d) $[Ar]\,3d^{10}\,4s^2$

46. Pauling's electronegativity values for elements are useful in predicting *[1989]*
(a) Polarity of the molecules
(b) Position in the E.M.F. series
(c) Coordination numbers
(d) Dipole moments.

ANSWER KEY

1	(c)	**6**	(a)	**11**	(b)	**16**	(a)	**21**	(d)	**26**	(d)	**31**	(a)	**36**	(b)	**41**	(c)	**46**	(a)
2	(a)	**7**	(c)	**12**	(b)	**17**	(a)	**22**	(d)	**27**	(a)	**32**	(a)	**37**	(a)	**42**	(c)		
3	(a)	**8**	(a)	**13**	(a)	**18**	(c)	**23**	(a)	**28**	(a)	**33**	(d)	**38**	(d)	**43**	(c)		
4	(a)	**9**	(b)	**14**	(N)	**19**	(b)	**24**	(b)	**29**	(b)	**34**	(a)	**39**	(d)	**44**	(a)		
5	(b)	**10**	(c)	**15**	(a)	**20**	(c)	**25**	(a)	**30**	(b)	**35**	(b)	**40**	(c)	**45**	(c)		

Hints & Solutions

1. (c) Ununnium (Z = 111), it is Roentgenium (Rg) not Darmstadtium.
2. (a) CO : Neutral oxide
   BaO : Basic oxide
   Al_2O_3 : Amphoteric oxide
   Cl_2O_7 : Acidic oxide
3. (a) After $_{86}Rn$ (Group 18), elements from atomic number 89 to 103 (actinides) are in group 3 114 = 103 + 11. Thus, element with atomic number 114 will be in group (3 + 11) or group 14 (carbon family).
   The outer shell configuration of group 14 is $ns^2 = np^2$.
   Hence, only option (a) is correct.
4. (a) The electronic configuration clearly suggest that it is a *d*-block element (having configuration $(n-1)\,d^{1-10}\,ns^{0-2}$) which starts from group 3 and goes till group 12. Hence with d^3 configuration it would be classified in the fifth group.
5. (b) Electronic configuration of element with atomic number 118 will be $[Rn]5f^{14}6d^{10}7s^27p^6$. Since its elctronic configuration in the outer most orbit (ns^2np^6) resemble with that of inert or noble gases, therefore it will be noble gas element.
6. (a) Atomic number of the given element is 15 and it belongs to 5th group. Therefore atomic number of the element below the above element = 15 + 18 = 33.
7. (c) Element with $Z = 33$
   $(1s^2 2s\ \ p^6 3s^2 p^6 d^{10} 4s^2 p^3)$ lies in fifth (or 15th) group.
8. (a) Na_2O basic oxide
   Al_2O_3 amphoteric oxide
   N_2O neutral
   Cl_2O_7 acidic oxide

   NOTES
   Elements of gp.1 and 2 form besicoxides while gp. 13 and 14 elements form amphoteric oxides. Elements of gp. 16 and 17 form acidic oxides. Acidic character of oxides increases from left to right in the periodic table.

9. (b) Consider the stability of electronic configuration after loss of one electron.
10. (c) Due to poor shielding effect of 3d electrons in Ga, the atomic radii of Ga < A*l*. Thus, the correct order of atomic radii is B < Ga < A*l* < I*n* < T*l*.
11. (b) The correct order is B < C < O < N
    Generally ionisation energy increases across a period. But here first I.E. of O is less than the first I.E. of N. This is due to the half-filled 2*p* orbital in N($1s^2, 2s^2, 2p^3$) which is more stable than the 2*p* orbital in O ($1s^2, 2s^2, 2p^4$).
    (c) The correct order of electron affinity is I < Br < F < Cl

    NOTES
    Halogens have high electron affinities which decreases on moving down the group. However, fluorine has lower value than chlorine which is due to its small size and repulsion between the electron added and electrons already present.

12. (b) In isoelectronic species the radius decrease with increase in nuclear charge hence increasing order of radius is $Ca^{+2} < K^+ < Ar$
13. (a) Incoming electrons occupies the smaller *n* = 2 shell, also negative charge on oxygen (O^-) is another factor due to which incoming electron feel repulsion.
    Hence, electron repulsion outweigh the stability gained by achieving noble gas configuration.
14. (N) All answers are incorrect.

    NOTES
    $H^- > H > H^+$; $O^{2-} > F^- < Na^+$
    $O^{2-} > F^- > Na^+$; $N^{3-} > Mg^{2+} > Al^{3+}$
    For isoelectronic species the size is determined by $Z_{effe.}$ Higher the $Z_{effe.}$ lower is the size of the ions/species.

15. (a) As the nuclear charge increases, the force of attraction between the nucleus and the incoming electron increases and hence the elecron gain enthalpy becomes more negative, hence the correct order is
    Ca < Al < C < O < F
16. (a) As the positive charge increases on metal cation, radius decreases. This is due to the fact that nuclear charge in the case of a cation is acting on lesser number of electrons and pulls them closer.

17. (a) IE_1 of Na = – Electron gain enthalpy of Na^+
= – 5.1 eV.

NOTES

In this question, temperature is to be defined as absolute zero. This is due to the fact that ionization energy and electron affinity are defined at absolute zero temperature.

Ionization enthalpy = ionization energy + $\frac{5}{2}RT$

Electron gain enthalpy = electron affinity $-\frac{5}{2}RT$

18. (c)

	$_{12}Mg$	$_{15}P$	$_{17}Cl$	$_{20}Ca$
	160	110	99	197 (pm)

So, the order will be: Cl < P < Mg < Ca

19. (b) O < S < F < Cl
Electron gain enthalpy of given elements are – 141, – 200, – 333 and – 349 kJ mol^{-1} respectively.

NOTES

Due to small size of atom, addition of an electron is not easy. This is the reason why the magnitude of electron gain enthalpy of oxygen and fluorine is less than that of sulphur and chlorine respectively.

20. (c) Among the isoelectronic species, size increases with the increase in negative charge. Thus S^{2-} has the highest negative charge and hence largest in size followed by Cl^-, K^+ and Ca^{2+}.

21. (d) The smaller the atomic size, larger is the value of ionisation potential. Further the atoms having half filled or fully filled orbitals are comparatively more stable, hence more energy is required to remove the electron from such atoms.

22. (d) The stability of +1 oxidation state in-creases from aluminium to thallium i.e.
Al < Ga < In < Tl

NOTES

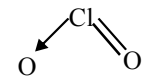
Inert pair effect is generally exhibited by some heavier nucleus p-block elements with common molecular formula ns^2np^{1-6}. These elements have less tendency to leave their outer most s-electrons at the time of chemical reaction i.e. electrons present in s-orbital does not participate in the bond formation. For example Tl, Po, Sn, Pb, Bi.

23. (a) Proton affinity decreases in moving across the period from left to right due to increase in charge, within a group the proton affinities decreases from top to bottom.
Nitrogen family > Oxygen family > Halogens

24. (b) $1s^2$, $2s^2$, $2p^5$, $3s^1$ is an unstable configuration with the outermost electron in 3rd orbit. Hence, it has lowest ionisation enthalpy.

25. (a) For isoelectronic species, size of anion increases as negative charge increases whereas size of cation decreases with increase in positive charge. Further ionic radii of anions is more than that of cations. Thus the correct order is
$Ca^{2+} < K^+ < Ar < Cl^- < S2^-$

26. (d) Due to odd number of electrons in ClO_2, it is expected to exhibit paramagnetic behaviour.



Paramagnetic

27. (a) Ionic radii are inversely proportional to effective nuclear charge.
Ionic radii in the n^{th} orbit is given as
$r_n \quad \frac{n^2 a_0}{Z}$ or $r_n \quad \frac{1}{Z}$
when n = principal quantum number
Z=effective nuclear charge.

28. (a) Among the given options, only Fe shows variable oxidation states so it can form two chlorides, viz. $FeCl_2$ and $FeCl_3$.

29. (b) This is because of inter-electronic replusions between lone pairs.

B.E. :	F – F	Cl – Cl
(kJ mol^{-1}) :	158.8	242.6

30. (b) Along the period, I.P. generally increases but not regularly. Be and B are exceptions. First I.P. increases in moving from left to right in a period, but I.P. of B is lower than Be.

31. (a) Be – $1s^2 2s^2$; B – $1s^2 2s^2 2p^1$; C – $1s^2 2s^2 2p^2$; N – $1s^2 2s^2 2p^3$; O – $1s^2 2s^2 2p^4$. IP increases along the period. But IP of Be > B. Further IP of O < N because atoms with fully or partly filled orbitals are most stable and hence have high ionisation energy.

32. (a) Mg $1s^2 2s^2 2p^6 3s^2$
After the removal of 2 electrons, the magnesium ion will acquire noble gas configuration hence removal of 3rd electron will require large amount of energy.

33. (d) First ionisation potential of Be is greater than boron due to following configuration
$_5B = 1s^2 2s^2 2p^1$, Order of attraction of electrons towards nucleus

remove the electron in 2*s*-orbital in comparison to 2*p* orbital.

34. (a) In a period on moving from left to right ionic radii decreases.
So order of cationic radii is $Cr^{2+} > Mn^{2+} > Fe^{2+} > Ni^{2+}$

35. (b) Greater is the positive charge on atom, larger will be the effective nuclear charge. Hence smaller is the size.

36. (b) N_2O_5 is strongly acidic, ZnO and Al_2O_3 are amphoteric, therefore, MgO is most basic.

37. (a) Non metals form oxides with oxygen and thus reduce oxides of metals behaving as reducing agents.

38. (d) Abnormally high difference between 2nd and 3rd ionization energy means that the element has two valence electrons.

39. (d) Atomic volume is the volume occupied by one mole of an element. Within a period from left to right, atomic volume first decreases and then increases due to increase in nuclear charge and increase in molar mass.

40. (c) Amongst isoelectronic ions, the size of the cation decreases as the magnitude of the charge increases.

41. (c) Proton (H^+) being very small in size would have very large hydration energy.

42. (c) N, O and F (*p*-block elements) are highly electronegative non metals and will have the strongest tendency to form anions by gaining electrons from metal atoms.

43. (c) Elements of halogen group form anions most readily.

NOTES

Electron affinity values are high in case of halogen because halogens have seven electrons (ns^2np^5) in the valence shell, they have a strong tendency to acquire the nearest inert gas configuration by gaining an electron from the metallic atom and form halide ions easily.

44. (a) Metallic character decreases in a period and increases in a group.

45. (c) Elements (a), (b) and (d) belong to the same group since each one of them has two electrons in the s-sub shell. In contrast, element (c) has seven electrons in the valence shell and hence does not lie in the same group.

46. (a) Paulings electronegativity values for elements are useful in predicting polarity of the

NOTES

Pauling scale of electronegativity was helpful in predicting :
(i) Nature of bond between two atoms
(ii) Stability of bond
By calculating the difference in electro-negativities, polarity of bond can be calculated.