

- 1) What is the basic difference in electronic configuration of elements in group 1 and group 2?
- 2) On the basis of periodic classification, identify each set as belonging to a group or a period.
- a) Na, Mg, Al b) Na, K, Rb, c) B, C, N d) He, Ne, Ar.
- 3) How were the positions of cobalt and nickel resolved?
- 4) Which element in Period 3 has both metallic and nonmetallic properties?
(a) Na; (b) Mg; (c) Si; (d) Ar
- 5) Given the general formula XCl_2
Which element in Period 3 of the periodic table will form a chloride having the above formula? (a) Mg; (b) Na; (c) Ar; (d) S
- 6) As one proceeds from left to right across a given period on the Periodic Table the electronegativities of the elements generally
(a) decrease; (b) increase; (c) remain the same.
- 7) An atom of fluorine is smaller than an atom of oxygen. Explain.
- 8) If X represents an element of Group IA the formula of its oxide would be (1) XO;
(a) X_2O ; (3) XO_2 ; (4) X_2O_3
- 9) Compared to the covalent atomic radius of a sodium atom, the covalent atomic radius of a magnesium atom is smaller. Comment.
- 10) The pair of elements with the most similar chemical properties are
(a) Mg and S; (b) Ca and Br; (c) Mg and Ca; (d) S and Ar
- 11) Which group in the Periodic Table contains elements that are the salt producers?
- 12) Which of the following ions has the smallest radius?
a) F^{2+} b) K^{+1} c) Cl^{1-} d) Ca^{2+}
- 13) How does electronegativity and non-metallic character related to each other?
- 14) Arrange the following elements in the increasing order of metallic character :
Si, Be, Mg, Na, P.
- 15) Why do Na and K have similar properties?
- 16) Name the two elements whose existence and properties were predicted by Mendeleev though they did not exist then.
- 17)

	1	2	13	14	15	16	17	18
Period 1	B							A
Period 2	P		Q				N	C
Period 3	L				M			

- a) The size of N is smaller than size of C. Give suitable reason.
- b) Write the valency of element Q. What will be the formula of its oxide and chloride
- c) The valency of element A is zero. Give suitable reason.
- d) What is the electronic configuration of L.
- 18) Give any two similarities between Hydrogen and lithium and hydrogen and chlorine.
- 19) Give reason
Electropositive nature of elements increases down the group and decreases across the period. Justify
- 20) Which type of oxide will Eka-Aluminium form
a) EO_3 b) E_3O_2 c) E_2O_3 d) EO