

# JSUNIL TUTORIAL

PUNJABI COLONY GALI 01

Sample Paper – 2011

Class – X

Subject – Chemistry

## Periodic classification of elements

Multiple choice questions

1. The amount of energy when a neutral gaseous atom gain one electron is called  
Ionisation energy (b) electron affinity (c) ionization potential (d) bond energy
2. The energy required to remove an electron from an isolated gaseous atom is  
electron affinity (b) ionization energy (c) ionization potential (d) bond energy
3. How metallic character changes in period from left to right?  
(a) increases (b) decreases (c) increases and then decreases (d) no effect
4. The element having similar properties are placed in same  
(a) period (b) group (c) both (d) none of these
5. Size of sodium ion is (a) smaller (b) equal (c) greater (d) none of these Than sodium atom
6. group II element are known as  
(a) halogen (b) inert gas (c) alkalis (d) alkaline earth metal
7. An element X belongs to the 2<sup>nd</sup> group of periodic table. What is formula of its chlorides?  
(a) X<sub>2</sub>Cl (b) XCl<sub>2</sub> (c) X<sub>2</sub>Cl<sub>2</sub> (d) XCl
8. What is valence electron of last element in 3<sup>rd</sup> period?  
(a) 1 (b) 5 (c) 8 (d) 0
9. What happens to atomic size in group from top to bottom?  
(a) decreases (b) increases (c) remains same (d) none of these

10. In F, Cl, Br, I, Which one is most reactive? Br (b) Cl (c) F, (d) I

Short answer type:

1	2	13	14	15	16	17	18
H							He
A						B	
C						D	

1. On basis of above periodic table answer the following.

Which element is the most metallic?

Which atom is the largest?

2. Answer on basis of given periodic table

1	2	13	14	15	16	17	
Lithium			Carbon		Oxygen		
X			S		G		
Y							
Z							

which is the most reactive metal

Which is the most reactive non metal

Name the family Q,R,T

Name one element of group 2,13,and 15

3. Explain why atomic no. is more important than atomic weight?

4. Give the symbol of

a metal from group 2

a metal of group 13

two non metal of group 16

most reactive non metal of group 17

5. Magnesium oxide is  $MgO$ , magnesium hydroxide is  $Mg(OH)_2$  and magnesium sulphate is  $MgSO_4$ .  
What would be formula of

(a) Barium oxide

(b) Barium hydroxide

Barium sulphate

6. Two elements X and Y belong to group 1 and 2 in same period. Compare them with respect to  
valence electron, valency, metallic character, size of atom, formula of their oxide

7. The atomic no. of an element is 16. Predict its

(b) valency

(c) group no. d. is it metal or non metal e. name the element

8. Write differences between Mendeleev's and Modern periodic table.

9. Define ionization energy. Ionisation energy of an element is  $500\text{ kJ/mole}$  and of another element is  $375\text{ kJ/mole}$ . Comment about their relative position in group as well as period

10. Why did Mendeleev leave some gaps in periodic table? Give your answer with example.

### Long answer questions:

1. Element X with atomic no. 11 and element Y with atomic no. 16 reacts with hydrogen to form hydrides.  
. Write formula of their hydrides. Which of them will have high melting point and why?

2. Identify the following:

a. An element with 4 electrons in its M shell

b. element with half as many electrons in 3<sup>rd</sup> cell as compared to 2<sup>nd</sup> cell.

c. An alkali metal.

(d) An alkaline earth metal.

(e) Lightest element.

3. An element belongs to 4<sup>th</sup> period and 17<sup>th</sup> group. Find out

(d) valence electron (b) valency (c) Name of element (d) formula of this element with hydrogen

4. Among the following element of 2<sup>nd</sup> period

Li, Be, B, C, N, O, F, Ne

(a) Which has largest atomic size

(b) smallest atomic size

(c) which has 5 valence electron

(d) The most electronegative element

(e) The most metallic element

(f) Element with electron and form acidic oxide

5.

Group	1	2	3 to 12	13	14	15	16	17	18
Period									
1	G								H
2	A			I			B		C
3		D			E				F

Answer on basis of given periodic table

(a) Which element will form only co-valent compound

(b) Non metal with valency 2

(c) Metal with valency 2

(d) Out of H, C, F which has largest

(e) Give name of family to which H, C, and F belong.

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