**Total No. pages:02**

**SCHOOL NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 WORKSHEET – 3/Module-3**

**Sub: CHEMISTRY Class : XI**

**Lesson: CLASSIFICATION OF ELEMENTS AND PERIODICITY IN   
 PROPERTIES**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Roll No.:\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_**

**Maximum Marks: 20 Marks Obtained:**

**I. (MULTIPLE CHOICE QUESTION)MCQS (10X1=10M)**

**1. The process requiring the absorption of energy is  
a) F🡪F- b) Cl🡪 Cl-  c) O- 🡪 O-2 d) H 🡪 H-**

**2. The electron gain enthalpy values (KJ/mol) of three halogens X,Y and Z are respectively -349,-333 and -325. Then X,Y and Z respectively are**

**a) F2, Cl2 and Br2 b) Cl2,F2 and Br2 c) Cl2,Br2 and F2 d) Br2,Cl2 and F2**

**3. The electron affinities of N,O,S and Cl are**

**a) N<O<S<Cl b) O<N<Cl<S c) O=Cl<N=S d) O<S<Cl<N**

**4. A correct variation in the electronegativity value of atoms is**

**a) F>N>O>C b)F>O>N>C c) F<N<O>C d) F>N>O<C**

**5. If the electronegativity difference between bonded atoms is exactly 1.7 the nature of bond formed is**

**a) > 50% ionic b) <50% ionic c) 50% ionic & 50% covalent d) 100% ionic**

**6. Which of the following electronic configuration corresponds to the most electropositive character?**

**a) [He] 2s1 b) [He] 2s2  c. [He] 6s1  d) [He]6s2**

**7. Which has most stable +2 oxidation state?**

**a) Cs b) Cl c) Pb d) Tl**

**8. Among the following outermost configuration of metals, which shows the highest oxidation state?**

**a) 3d34s2 b) 3d54s1 c) 3d54s2  d) 3d64s2**

**9. Boron and Silicon resemble chemically, this is due to the equal value of their**

**a) Electron gain enthalpy b) Atomic volume   
c) ions polarizing power d) Nuclear charge**

**10. Electronegativity is the property related to**

**a) Isolated atom in gaseous state b) Isolated atom in solid state   
 c) Inert gas d) bonded atoms in a molecule**

**II. ANSWER THE FOLLOWING QUESTIONS:- (10M)**

1. **What are super heavy elements? (1M)**
2. **Arrange the following elements in the increasing order of non-metallic character: B, C, Si, N,F (1M)**
3. **Why electron gain enthalpies of Be and Mg are positive? (1M)**
4. **Which one(atom/ion ) in the following pairs has more negative electron gain enthalpy?  
   (i) O-,S- (ii) N-,P (1M)**
5. **Among the elements B,Al,C and Si  
   a) Which has the highest first ionization enthalpy?  
   b) Which has the most negative electron gain enthalpy?  
   c) Which has the largest atomic radius?  
   d) Which has the most metallic character? (2M)**
6. **What do you mean by successive electron gain enthalpies? Why is the second electron enthalpy of an atom positive? (2M)**
7. **Write main points of difference between electronegativity and electron   
    gain enthalpy (2M)  
    …X…**