CHOITHRAM SCHOOL MANIKBAGH INDORE
CLASS XI Session: 2018-19

Subject: Chemistry **Assignment No: 2**
Allotment Date: 14/09/18 **Submission Date: 20/09/18**

S.No	QUESTION	MARKS	LEVEL
	OBJECTIVE TYPE		
1.	What is the basic difference in approach between the Mendeleev are Periodic Law and the Modern Periodic Law?	1	Knowledge
2.	What are the factors affecting ionic bond formation?	1	Knowledge
3.	How many electrons in sulphur (at.no.16) can have n+l=3?	1	Analysis
	SHORT ANSWER TYPE I		
4.	Draw the structure of H_3O^+ and NH_2^-ion .and calculate formal charge on central atom	2	Understanding and application
5.	CO_2 is linear while H_2O is bent.why	2	understanding
6.	Draw structure of an anion which is iso structural with BF_3	2	Synthesis +understanding
7.	The first ionization enthalpy ($\Delta i\ H$) values of the third period elements, Na, Mg and Si are respectively 496, 737 and 786 kJmol–1. Predict whether the first $\Delta i\ H$ value for Al will be more close to 575 or 760 kJ mol–1 ? Justify your answer.	2	Analysis
	SHORT ANSWER TYPE II		
8.	Arrange the following in increasing order of atomic radius and give reason to support your answer N,O and Ne	3	understanding
9.	Would you expect first ionization energy of O-16 and O-18 would be same or different? Justify your answer	3	analysis
10.	a. Explain hybridization in PCl5 and b. Why axial bonds are longer than equatorial bonds in this molecule?	3	understanding
	LONG ANSWER TYPE		
11.	The elements $Z =$ 120 have not yet been discovered. In which family /group would you place these elements and also give the electronic configuration in each case.	5	understanding
12.	a) The unpaired electrons in Al and Si are present in 3*p* orbital. Which electrons will experience more effective nuclear charge from the nucleus and why?. b) what are the similarities and differences 2p and 3p orbitals c). The quantum numbers of six electrons are given below. Arrange them in order of increasing energies. Also mention the orbital's occupied by these electrons. a. $n = 5, l = 0$ b. $n = 3, l = 2,$ c. $n = 4, l = 1$ d. $n = 4, l = 0$ e. $n = 3, l = 1$ f. $n = 2, l = 0$	5	Analysisy+Understanding