ASSIGNMENT

At the top of your assignment, please print **"T7 – The Periodic Table and Atomic Theory, your LAST then First name, block and date**. Show all your work for questions requiring calculations; marks will not be awarded for final answers only. Complete these questions in the order given here. *[Marks indicated in italicized brackets.]*

1. Copy this table into your assignment sheet then complete it. *[7]*

	Occupied Orbits	Valence electrons
a. Be		
b. Cl		
c. Kr		
d. I		
e. Pb		
f. As		
g. Cs		

2. Give the symbol of an element having six valence electrons. *[1]*

3. Give the symbol of an element with a half full n = 2 orbit. *[1]*

4. Give the symbol of an element that loses two electrons. *[1]*

5. Give the symbol of an element that gains one electron. *[1]*

6. Write the chemical name, symbol and orbital diagram for these descriptions. *[12]*
   a. 11 p^+ & 10 e^- b. 18 e^- & 3− charge c. 16 p^+ & 18 e^-

7. Two atoms have the information given below. Explain why they are or are not isotopes of each other? *[2]*
   Atom one: Z = 12 & A = 26 Atom two: Z = 14 & A = 26

8. Analysis of a sample of Magnesium has indicated it is composed of 80% Mg-24, 10% Mg-25 and the remanding percentage is Mg-26. Calculate the average relative atomic mass of Mg. *[2]*

[27 marks in total]

BE SURE YOU ARE PREPARED FOR MEMORY CHALLENGE-1 ON T1 – T7!!

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