

Course No: DMEC 1303  
Course Title: General Chemistry  
Date: 23 / 11 /2014  
No. of Questions: (5)  
Time: 1 hours  
Using Calculator (Yes)

University of  
Palestine



First semester  
2014/2015

Instructor Name: Mr. Kamal Jarbou  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: \_\_\_\_\_  
Dep. / Specialist: \_\_\_\_\_  
Using Dictionary (No)  
Total Grade: 20

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**Question I. Define the following terms " 5 Marks"**

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**1. Isotopes**

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**2. The Mole**

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**3. The Compound**

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**4. Unsaturated Solution**

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**5. Molecular weight**

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**Question II. True Or False ( 5 Marks )**

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1. The most of atomic mass is located in the nucleus ( ).
2. In periodic table as we go from left to write in periods the atomic number decreases ( ).
3. The electrons rotates around the nucleus in orbits which have different energy level ( ).
4. The concentration of a Solution depends on the quantity of The Solute in a fixed volume ( ).
5. The elements in second group have one electron in the valance shell ( ).

**Question III. Choose the correct answer ( 5 Marks )**

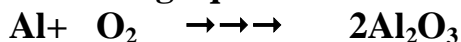
1. How many  $\text{Cm}^3$  are in  $0.222 \text{ dm}^3$   
a .  $22.2 \text{ Cm}^3$       b .  $222 \text{ Cm}^3$       c .  $0.000222 \text{ Cm}^3$       d .  $2.22 \text{ Cm}^3$
2. How many grams in  $0.2 \text{ M}$  solution of  $\text{NaCl}$  in  $70 \text{ ml}$  of water  
(M.Wt  $\text{NaCl}=58.5 \text{ g}$ )  
a .  $0.14 \text{ g}$       b .  $140 \text{ g}$       c .  $0.819 \text{ g}$       d . None
3. Calculate the number of electrons in  $\text{Fe}^{+2}$  if the atomic number of  $\text{Fe} = 26$   
a . 26      b . 28      c . 24      d . 20
4. The element from halogen group is  
a . Ca      b . Cu      c . N      d . I
5. The ratio of carbon in  $\text{CCl}_4$   
a . 0.2      b . 0.4      c . 0.8      d . 0.6

**Question IV. Distribute the electrons in  $\text{X}^{27}$  in term of orbit only( 2 Marks )**

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**Question V. Do as requested ( 3 Marks )**

a . Balance the following equation



b. How many grams of  $\text{O}_2$  are required to react with  $0.3 \text{ mole}$  of  $\text{Al}$ ?

c. how many grams of  $\text{Al}_2\text{O}_3$  will be produced if  $12.5 \text{ gram}$  of  $\text{O}_2$  are completely reacted with  $\text{Al}$

atomic w.t of  $\text{Al} = 28\text{g}$

atomic w.t of  $\text{O} = 16\text{g}$

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***End of Questions  
Good Luck***