

Course No: DMEC 1303
Course Title: G. Chemistry
Date: 12/11/2011
No. of Questions: 4
Time: 1 hours
Using Calculator (Yes)

University of Palestine



Midterm Exam "B"
First semester
2011/2012
Total Grade: 40

Instructor Name: Dr Raef Ahmed
Student No.: _____
Student Name: _____
Student group: _____
Dep. / Specialist: _____
Using Dictionary (No)

Q.1) Define the following chemical terms:

(5 Marks)

1) Mole:

.....
.....

2) Compound:

.....
.....

3) Isotopes:

.....
.....

4) Mass:

.....
.....

5) Relative error:

.....
.....

Q. 2) Indicate if the following statements are true (v) or false (X) :-

(10 Marks)

- 1) () The SI unit for time is second
- 2) () SO_3 has 6.022×10^{23} S atoms and 6.022×10^{23} O atoms
- 3) () The reactant used up first in a reaction is called limiting reagent.
- 4) () Glass heated in a hot flame becomes fluid. This is considered a chemical change.
- 5) () The number of S. F in 0.00203 is 3.
- 6) () Empirical formula is not the true formula. It does not show the actual number of atoms in the molecule.
- 7) () Elements in the periodic table are arranged according to their atomic number.
- 8) () Electron shells energy decreases with increase in principal quantum number, n.
- 9) () Mn^{4+} is polyatomic molecule.
- 10) () 1 cubic centimetre (cc or cm^3) = 1 millilitre (mL)

Q.3) Answer the following questions:

a) Can one observe the emission spectrum of an atom in the ground state? Explain your answer? **(2 Marks)**

Answer:

b) Explain why atom is electrically neutral? **(2 mark)**

Answer:

Q. 4) Choose the correct answer of each of the following: - (12 Marks)

<p>1000 μgram = g</p> <p>a) 1×10^{-3} b) 1×10^{-6} c) 100×10^{-4} d) 100×10^{-3}</p>	<p>The SI unit for temperature is:</p> <p>a) Degree Celsius b) Degree Fahrenheit c) Kelvin d) None of the above</p>
<p>Mercury is:</p> <p>a) Metalloid so it is liquid. b) Nonmetal so it is liquid at room temperature. c) Metal but liquid at room temperature d) None of the above.</p>	<p>Copper melts at 1084.62 $^{\circ}$C =.....$^{\circ}$F</p> <p>a) 1984.32 b) 1983.45 c) 1789.90 d) 1876.76</p>
<p>The result of the following calculation to the correct S.F $43.92 \text{ g} \div 27.2 \text{ mL}$ is:</p> <p>a) 1.6147058 mL/g b) 1. 6145 gmL c) 1.61 g/mL d) 1.62 g/mL</p>	<p>The result of the following calculation to the correct number of S.F $(9.62 \times 10^{-4}) - (2.93 \times 10^{-3}) =$</p> <p>a) - 0.0019 b) -1.97×10^{-3} c) 1.97×10^{-3} d) None of the above</p>
<p>If $n = 5$ then the values of l are:</p> <p>a) 0,1,2,3,4 b) 1, 2, 3,4 c) 0, 1, 2,3 d) 1, 2, 4</p>	<p>Germanium is one of..... in the periodic table</p> <p>a) Metalloids b) Halogens c) Nonmetals d) Metals</p>

<p>Fe⁺³ has.....</p> <p>a) 26 protons, 26 electrons and 30 neutrons b) 24 protons, 26 electrons and 30 neutrons c) 26 protons, 23 electrons and 30 neutrons d) 23 protons, 26 electrons and 33 neutrons</p>	<p>Which of the following is triatomic molecule:</p> <p>a) HCl b) NH₃ c) H₂O d) Answer b + C</p>
<p>Which one of the following molecular formulas is also an empirical formula?</p> <p>a) C₃H₃O b) H₂O c) C₂H₆SO d) All the above</p>	<p>Which of the following S.N is the write expression for 0.000153</p> <p>a) 1.53×10^{-4} b) 0.0153×10^2 c) 1.53×10^4 d) 15.3×10^{-5}</p>

Q. 5) Solve the following problems:-

(Total of 9 marks)

a) How many atoms of Au are there in 150 g Au?

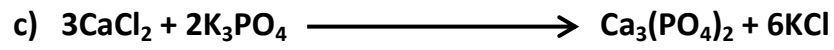
(2 Marks)

Answer:

b) What is the % composition of Na, O, and S in Na₂SO₄?

(3 Marks)

Answer:



How many grams of KCl can be produced from the reaction of 54.0 g of K_3PO_4 ?
(4 Marks)

Answer:

اتتهت الاسئلة

مع تمنياتي لكم بالنجاح الباهر

د. رائف عايش احمد