Philadelphia University
Faculty: Science
Department: Basic sciences
Exam time: 50 min.
Date: 20 /3/2019

General health Chemistry 0212109
First exam

Name : ……………… …………   Student No. : …………….……………………

Section   : …………………   instructor Name : …………….………………..

Useful data:

Avogadro's number is 6.022×10^{23}

Question. No.	1	2	3	4	5	6	7	8	9	10	11
Answer											

Q1 : Select the one that is best in each case and write the symbol of correct answer A,B,C or D.

1- How many significant figures does the sum 8. 24 - 1.903 contain?

   A. 1   B. 2   C. 3   D. 4

2- What is the formula of cobalt (III) floride?

   A. CoF_2 B. CoF C. Co_3F D. CoF_3

3- What is the empirical formula of the ionic compound that forms between sodium and sulfur?

   A. NaS B. Na_2S C. Na_2S_3 D. $NaSO_4$

4- the number of O- atoms in 120 g $NaClO_2$ is

   A. 1.59×10^{24} atoms   B. 1.6×10^{24} atoms

   C. 6.022×10^{23} atoms   D. 2 atoms

5 - Calculate the percent of composition of oxygen % O in $C_6H_{12}O_6$.

   A. 57.1%   B. 53.3%   C. 0.53 %   D. 0.57%

6- The correct name of SO_2.

   A. Sulfur dioxide   B. Sulfur oxide
   C. Sulfur trioxide   D. Mono sulfur trioxide

7- The average surface temperature on Mars is 63 C. What is the temperature in Fahrenheit F .

   A. -145.4 F   B. -81.4 F   C. 81.4 F   D. 145.4 F

8- Suppose you have a 100 g sample of each of the following compounds. Which sample contains the largest number of moles of compound?

   A. NH_3 B. $MgCl_2$ C. H_3PO_4 D. $CrCl_3$

9- The element indium has a density of 7.31 g/cm^3. What is the mass of a piece in **mg** of indium whose volume is 6.4 cm^3 ?

   A. 6.4×10^{-3} mg   B. 46.7×10^{-3} mg
   C. 46.7×10^{3} mg   D. 6.4×10^{3} mg

10- Which of the following is an ionic compound?

      A. NH_3 B. CCl_4 C. LiF   D. NO_2
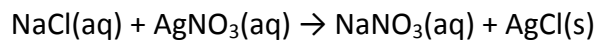
11- Which of the following is non metal ?

     A. Cl   B. Cu   C. Ni   D. K

Q 2:

In the precipitation of AgCl reaction, 20 g of NaCl are reacted with $AgNO_3$, How many grams of AgCl are collected ?

$$NaCl(aq) + AgNO_3(aq) \rightarrow NaNO_3(aq) + AgCl(s)$$

Q 3:

Determine the simplest <u>empirical formula</u> and <u>molecular formula</u>

(molar mass =371g/mol) of the compound with the following composition by mass:

       64.68 g C ;   8.685 g H ;   7.54 g N   ; 19.09 g Cl.