



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											

1 H Hydrogen 1.01																	2 He Helium 4.00														
3 Li Lithium 6.94	4 Be Beryllium 9.01															5 B Boron 10.81	6 C Carbon 12.01	7 N Nitrogen 14.01	8 O Oxygen 16.00	9 F Fluorine 19.00	10 Ne Neon 20.18										
11 Na Sodium 22.99	12 Mg Magnesium 24.31															13 Al Aluminum 26.98	14 Si Silicon 28.09	15 P Phosphorus 30.97	16 S Sulfur 32.07	17 Cl Chlorine 35.45	18 Ar Argon 39.95										
19 K Potassium 39.10	20 Ca Calcium 40.08	21 Sc Scandium 44.96	22 Ti Titanium 47.87	23 V Vanadium 50.94	24 Cr Chromium 52.00	25 Mn Manganese 54.94	26 Fe Iron 55.85	27 Co Cobalt 58.93	28 Ni Nickel 58.69	29 Cu Copper 63.55	30 Zn Zinc 65.39	31 Ga Gallium 69.72	32 Ge Germanium 72.61	33 As Arsenic 74.92	34 Se Selenium 78.96	35 Br Bromine 79.90	36 Kr Krypton 83.80														
37 Rb Rubidium 85.47	38 Sr Strontium 87.62	39 Y Yttrium 88.91	40 Zr Zirconium 91.22	41 Nb Niobium 92.91	42 Mo Molybdenum 95.94	43 Tc Technetium (98)	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.91	46 Pd Palladium 106.42	47 Ag Silver 107.87	48 Cd Cadmium 112.41	49 In Indium 114.82	50 Sn Tin 118.71	51 Sb Antimony 121.76	52 Te Tellurium 127.60	53 I Iodine 126.90	54 Xe Xenon 131.29														
55 Cs Cesium 132.91	56 Ba Barium 137.33	57 La Lanthanum 138.91	72 Hf Hafnium 178.49	73 Ta Tantalum 180.95	74 W Tungsten 183.84	75 Re Rhenium 186.21	76 Os Osmium 190.23	77 Ir Iridium 192.22	78 Pt Platinum 195.08	79 Au Gold 196.97	80 Hg Mercury 200.59	81 Tl Thallium 204.38	82 Pb Lead 207.2	83 Bi Bismuth 208.98	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)														
87 Fr Francium (223)	88 Ra Radium (226)	89 Ac Actinium (227)	104 Rf Rutherfordium (261)	105 Db Dubnium (262)	106 Sg Seaborgium (266)	107 Bh Bohrium (264)	108 Hs Hassium (269)	109 Mt Meitnerium (268)																							
																		58 Ce Cerium 140.12	59 Pr Praseodymium 140.91	60 Nd Neodymium 144.24	61 Pm Promethium (145)	62 Sm Samarium 150.36	63 Eu Europium 151.96	64 Gd Gadolinium 157.25	65 Tb Terbium 158.93	66 Dy Dysprosium 162.50	67 Ho Holmium 164.93	68 Er Erbium 167.26	69 Tm Thulium 168.93	70 Yb Ytterbium 173.04	71 Lu Lutetium 174.97
																		90 Th Thorium 232.04	91 Pa Protactinium 231.04	92 U Uranium 238.03	93 Np Neptunium (237)	94 Pu Plutonium (244)	95 Am Americium (243)	96 Cm Curium (247)	97 Bk Berkelium (247)	98 Cf Californium (251)	99 Es Einsteinium (252)	100 Fm Fermium (257)	101 Md Mendelevium (258)	102 No Nobelium (259)	103 Lr Lawrencium (262)

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) fluoride?

- 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 $\text{C}_6\text{H}_{12}\text{O}_6$.

- 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. $6.4 \times 10^{-3} \text{ mg}$ B. $46.7 \times 10^{-3} \text{ mg}$
C. $46.7 \times 10^3 \text{ mg}$ D. $6.4 \times 10^3 \text{ mg}$

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

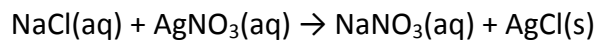
B. Cu

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 ?



Q 3:

Determine the simplest empirical formula and molecular formula

(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.