



Philadelphia University
Faculty: Science
Department: Basic sciences
Exam1 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											

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

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 $8.5201 + 1.93$ contain?

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

2- What is the formula of manganese (V) oxide?

- A. Mn_5O B. Mn_2O_5 C. MnO D. MnO_5

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

- A. CaS B. Ca_2S C. Ca_2S_3 D. CaSO_4

4- the number of H- atoms in 120 g $\text{C}_6\text{H}_6\text{NO}$ is

- A. 6 atoms B. 6.6×10^{23} atoms
C. 6.022×10^{23} atoms D. 4×10^{24} atoms

5 - Calculate the percent of composition of oxygen % O in NaHCO_3 .

- A. 57.1% B. 43.3% C. 19.0% D. 0.57%

6- The correct name of SO_3 .

- 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 $^\circ\text{F}$.

- A. -63°F B. -81.4°F C. 81.4°F D. 63°F

8- Suppose you have a 100 g sample of each of the following compounds. Which sample contains the smallest 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 0.52 cm^3 .

- A. $3.8 \times 10^3 \text{ mg}$ B. $3.8 \times 10^{-3} \text{ mg}$
C. $0.52 \times 10^{-3} \text{ mg}$ D. $0.52 \times 10^3 \text{ mg}$

10- Which of the following is **NOT** an ionic compound?

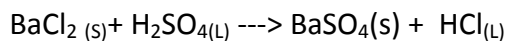
- A. LiF B. CCl₄ C. CaO D. FeSO₄

11- Which of the following is metal ?

- A. S B. C C. He D. Ni

Q 2:

In the precipitation of BaSO₄ reaction, 75 g of BaCl₂ are reacted with H₂SO₄, How many grams of BaSO₄ are collected ?



Q 3:

Determine the simplest empirical formula and molecular formula

(molar mass of molecular = 500 g/mol) of the compound with the following composition by mass: 76.78 g C ; 5.64 g H ; 11.19 g N ; 6.39 g O.