

Name:	Student ID No:
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A) Answer all questions below

1) Convert the values below into SI units (units must be written):

- a) 50 km = $50 \times 1000 = 50000 \text{ m}$ b) 50 min = $50 \times 60 = 3000 \text{ s}$
 c) 50 mg = $50 \times 10^{-3} \times 10^{-3} = 5 \times 10^{-5} \text{ kg}$ d) 50 dm³ = $50 \times 10^{-3} = 0.05 \text{ m}^3$

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2) Which of following properties is extensive or intensive?

Mass , Density , Temperature , Volume

Extensive property	Intensive property
<i>mass</i>	<i>density</i>
<i>Volume</i>	<i>temperature</i>

3) Which of following is ionic or molecular compound?

MoCl₆ , PCl₂ , SCl₂ , RbCl

Ionic compound	Molecular compound
<i>MoCl₆</i>	<i>PCl₃</i>
<i>RbCl</i>	<i>SCl₂</i>

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4) Complete the following table:

Species	Mass number	Neutrons	Electrons
<i>Ba²⁺</i>	<i>137</i>	<i>81</i>	<i>54</i>
<i>Cl⁻</i>	<i>37</i>	<i>20</i>	<i>18</i>

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56Ba⁺²: p: 56, Ba⁺²: e: 54, 137 = 56 + n → n = 81
17Cl⁻: p: 17, e: 18, n = 20 so mass # = 20 + 17 = 37

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B) Choose the correct choice and write your answer in the table below

1) One side of a cube measures 1.55 m. If the density of the cube is 1.6 kg/dm³, then the mass in "kg" of the cube is:

$$V = (1.55)^3 = 3.72 \text{ m}^3 \Rightarrow 3720 \text{ dm}^3$$

$$m = 1.6 \times 3720 = 5958.2 \text{ kg}$$

- A) 5958.2 B) 6.0 C) 2.5 D) 24.8

2) How many significant figures are in "0.00430" ?

- A) 2 B) 3 C) 5 D) 4

3) The correct result for $(4 \times 15.9994) + 32.066 + (2 \times 1.0079)$, is: $= 63.9976 + 32.066 + 2.0158$

- A) 98.0795 B) 98.08 C) 98.079 D) 98.1 $= 98.0794$

4) Which pair of atoms are isotopes of the same element?

- A) $^{30}_{15}\text{E}$ $^{31}_{16}\text{E}$ B) $^{30}_{15}\text{Y}$ $^{30}_{16}\text{Y}$
 C) $^{30}_{15}\text{L}$ $^{15}_{30}\text{L}$ D) $^{30}_{15}\text{X}$ $^{31}_{15}\text{X}$

5) The correct name for "Cr(NO₃)₃ · 9H₂O", is:

- A) chromium (III) trinitrate nonohydrate. B) chromium (III) nitrate nonahydrate.
 C) chromium nitrate nonahydrate. D) chromium (III) nitrite nonahydrate.

6) The correct formula of "copper (II) sulfide", is:

- A) CuS₂ B) CuSO₄ C) CuSO₃ D) CuS

7) The correct name for "H₂SO₃", is:

- A) hyposulfurous acid B) sulfuric acid
 C) sulfurous acid D) persulfuric acid

<i>Write your answer in the table below</i>	
Q1: A	Q5: B
Q2: B	Q6: D
Q3: C	Q7: C
Q4: D	

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