

CHEM 101 - CHEM 103

SECOND SEMESTER

FIRST MIDTERM EXAM

1438/1439H – 2017/2018G



COLLEGE OF SCIENCE
Chemistry Department

Student Name:	Total Mark <hr/> 15
University ID Number:	
Group Number:	
Sunday 23/06/1439H 05:00-06:30 PM	
Time allowed : 90 minutes	

Periodic Table of Elements

IA 1 H 1.008	2 IIA 3 Li 6.94	4 Be 9.01										13 IIIA 5 B 10.811	14 IVA 6 C 12.01	15 VA 7 N 14.01	16 VIA 8 O 16.00	17 VIIA 9 F 19.00	VIIIA 2 He 4.003
11 Na 23.00	12 Mg 24.31	3 IIIB	4 IVB	5 VB	6 VIB	7 VIIB	8	9 VIIIB	10	11 IB	12 IIB	13 Al 26.98	14 Si 28.09	15 P 30.97	16 S 32.07	17 Cl 35.45	18 Ar 39.98
19 K 39.09	20 Ca 40.08	21 Sc 44.96	22 Ti 47.87	23 V 50.94	24 Cr 52.00	25 Mn 54.94	26 Fe 55.85	27 Co 58.93	28 Ni 58.69	29 Cu 63.546	30 Zn 65.41	31 Ga 69.72	32 Ge 72.64	33 As 74.9216	34 Se 78.96	35 Br 79.90	36 Kr 83.80
37 Rb 85.47	38 Sr 87.62	39 Y 88.91	40 Zr 91.23	41 Nb 92.91	42 Mo 95.94	43 Tc [98]	44 Ru 101.07	45 Rh 102.91	46 Pd 106.42	47 Ag 107.87	48 Cd 112.41	49 In 114.82	50 Sn 118.71	51 Sb 121.760	52 Te 127.60	53 I 126.90	54 Xe 131.29
55 Cs 132.91	56 Ba 137.33	71 Lu 174.97	72 Hf 178.49	73 Ta 180.95	74 W 183.84	75 Re 186.21	76 Os 190.23	77 Ir 192.22	78 Pt 195.08	79 Au 196.97	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.980	84 Po [209]	85 At [210]	86 Rn [222]
87 Fr [223]	88 Ra [226]	103 Lr [262]	104 Rf [261]	105 Db [262]	106 Sg [266]	107 Bh [264]	108 Hs [269]	109 Mt [268]	110 Ds [271]	111 Rg [272]	112 Uub [285]	113 Uut [286]					

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 mg =

b) 50 dm³ =

c) 50 min =

d) 50 km =

2

2) Which of following properties is intensive or extensive?

Mass , Density , Temperature , Volume

Intensive property	Extensive property

2

3) Which of following is molecular or ionic compound?

MoCl₆ , PCl₂ , SCl₂ , RbCl

Molecular compound	Ionic compound

2

4) Complete the following table:

Species	Mass number	Neutrons	Electrons
<i>Cl⁻</i>		<i>20</i>	
<i>Ba²⁺</i>	<i>137</i>		

2

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:

- A) 6.0 B) 2.5 C) 24.8 D) 5958.2
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2) How many significant figures are in “ 0.00430 ” ?

- A) 3 B) 5 C) 4 D) 2
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3) The correct result for $(4 \times 15.9994) + 32.066 + (2 \times 1.0079)$, is:

- A) 98.08 B) 98.079 C) 98.1 D) 98.0795
-

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

- A) $^{30}_{15}\text{Y}$ $^{30}_{16}\text{Y}$ B) $^{30}_{15}\text{L}$ $^{15}_{30}\text{L}$
 C) $^{30}_{15}\text{X}$ $^{31}_{15}\text{X}$ D) $^{30}_{15}\text{E}$ $^{31}_{16}\text{E}$
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5) The correct name for " Cr(NO₃)₃ .9H₂O ", is:

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

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

- A) CuSO₄ B) CuSO₃ C) CuS D) CuS₂
-

7) The correct name for " H₂SO₃ ", is:

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

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