Name:	Class:	Date:	ID: G

Fall Semester Review Practice Test

Multiple Choice
Identify the choice that best completes the statement or answers the question. You may write on the test, however only your answers on the scantron will be graded.

* = =	7	0	Ø٦	4	ω	2		Pen
If this number is in p it refers to the atomi most stable isotope.	87 Fr Francium (223)	Cesium 132.91	37 Pb Rubidium 85.47	19 X Polassium 39.10	11 Na Sodium 22.99	Uthium 6.94	1A Hydrogen	odic Ta
er is in par ne atomic r isotope.	88 Ra Radium (226)	56 Ba Barium 137.33	Stronlium 87.62	20 Ca Calcium 40.08	12 Mg Magnesium 24.31	Beryllum 9.01	2 _A	ble of th
If this number is in parentheses, then it refers to the atomic mass of the most stable isotope.	Actinium (227)	57 La Lanthanum 138.91	39 Yltium 88.91	21 Sc Scandium 44.96	3B 3			Periodic Table of the Elements
hen	104 P.1 Rutherbridum (261)	72 Hf Hatnium 178.49	40 Zr Zirconium 91.22	22 Tilanium 47.87	4 A			ents
58 Ce Centum 140.12 90 Th Thorium 232.04	105 Db Dubnium (262)	73 Ta Tantalum 180.95	41 Nobium 92.91	23 V Vanadium 50.94	음 다			
59 Pr Prassodymum 140.91 91 Pa Prof actinium 231.04	106 Sg Seaborgium (266)	74 W Tungsten 183.84	42 Mo Molybdenum 95.94	24 Cr Chromium 52.00	8 o [Sodium Sodium		
60 Nd Neodymium 144.24 92 92 Uranium 238.03	107 Bh Bohrium (264)	75 Re Rhenium 186.21	43 Tc Technelium (98)	Mn Mn Manganese 54.94	₇₈	+++	_	<u>ا</u>
60 61 Nd Pm Neodymium Promethium 144.24 (145) 92 93 U Np Uranium Neptunium 238.03 (237)	108 Hs Hassium (269)	76 Os Osmium 190.23	44 Ru Ruthenium 101.07	26 Fon 6	Average atomic mass* 8 9 8B	Atomic number Element symbo Element name	Key	Chemistry Reference Sheet
62 Sm 150.36 94 Pu Plutonium (244)	Mt Mt Meilnerium (268)	77 r Iridium 192.22	⇒ ₹	27 Co Coball 58.93	mic mass g	ber nbol		ĮŽĮ
63 Eu Europium 151.96 95 Am Americium		78 Pt Platinum 195.08	46 Pd Palladum 106.42	28 Nickel 58.69	l s			etere
64 Gd Gadolinium 157.25 96 Cm Curium		79 Au Gold 196.97	47 Ag Silver 107.87	29 Copper 63.55	亩≐			nce :
65 Tb Terbium 158.93 97 BK Berkelium (247)		80 Hg Mercury 200.59	48 Ca Cadmium 112.41	30 Zn 2nc 65.39	12 28			sheei
66 Dy Dysprosium 162.50 98 Cf Californium (251)		81 Thallium 204.38	49 In Indium 114.82	31 Ga Gallium 69.72	13 Al Aluminum 26.98	5 Boron 10.81	3 ≯ ≾	
67 Ho Holmium 164.93 99 Einsteinium (252)		Pb Lead 207.2	50 In 118.71	32 Ge Germanium 72.61	14 Silicon 28.09	6 Carbon 12.01	4A A	
68 Er Erbium 167.26 100 Fm Fermium (257)		83 Bi Bismuth 208.98	51 Sb Antimory 121.76	33 As Arsenic 74.92	15 P Phosphorus 30.97	7 N Ntrogen 14.01	5A 15	
69 Tm Thuitum 168.93 101 Mendelewum (258)		Po Po Polonium (209)	52 Te Tellurium 127.60	34 Se Selenium 78.96	16 Sulfur 32.07	8 Охудел 16.00	6A	Califor
70 Yb Ytterbium 173.04 102 No Nobelium (259)		85 At Astatine (210)	<u> </u>	35 Br Bromine 79.90		TT	17 7A	California Standards Test
71 Lu Luteltum 174.97 103 Lr Lawrercium (262)		86 Radon (222)	54 Xen Xenon 131.29	36 Krypion 83.80	18 Argon 39.95	10 Neon 20.18	18 8A 8A +Helium	ndards

(-1) Charge Formula	(-1) Charge Names	(-2) Charge Formula	(-2) Charge Names
H ₂ PO ₄ -	Dihydrogen phosphate	HPO ₄ ² -	Hydrogen phosphate
HSO₃⁻	Hydrogen Sulfite	Cr ₂ O ₇ ²⁻	Dichromate
HSO₄ ⁻	Hydrogen Sulfate	O ₂ ²⁻	Peroxide
HCO₃⁻	Hydrogen Carbonate		
MnO ₄ -	Permanganate		
CℓO-	Hypochlorite		
CℓO2 ⁻	Chlorite		

1.	A	solution	is	known	as	a:

a. homogeneous mixture

c. element

b. heterogeneous mixture

d. compound

2. Which of the following elements has the smallest atomic radius?

a. sulfur

c. selenium

b. bromine

d. chlorine

3. Which of the following sets of symbols represents isotopes of the same element?

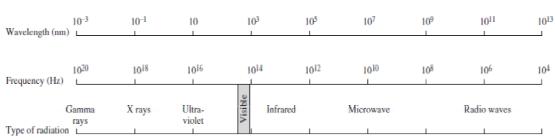
a. $^{91}_{42}J$ $^{92}_{42}$

c. $^{84}_{38}M$ $^{86}_{38}M$ $^{87}_{38}M$

b. ${}^{50}_{19}L$ ${}^{50}_{20}L$ ${}^{50}_{21}I$

d. $^{138}_{59}Q$ $^{133}_{55}Q$ $^{133}_{54}Q$

4. Using the figure below, which radiation has the lowest frequency?



- a. X rays
- b. Ultraviolet
- c. Microwave
- d. Gamma rays

5. The correct coefficient for oxygen when the equation is balanced is:

$$C_2H_4 + O_2 \rightarrow CO_2 + H_2O$$

- a. 1
- b. 2

d. 6 e. 14

c. 3

6. Choose the correct valence electrons for lead.

a. $6s^2 4f^{14} 5d^{10} 6p^2$

c. $6s^2 6p^2$

b. $7s^2 7p^2$

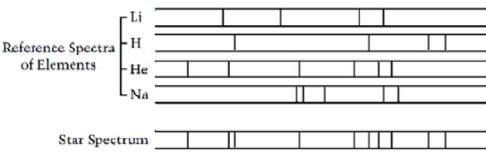
d. $5s^2 4d^{10} 5p^2$

7. When a metallic oxide, like KOH, reacts with water the product is a(an):

a. acid

- b. base
- 8. Which element(s) makeup the star spectrum below.

EMISSION SPECTRA



- a. He and Na
- b. He and Li
- c. He and H
- d. Li and H

9. Choose the correct formula for Ammonium oxalate.

a. $(NH_4)_2C_2H_3O_2$

c. $(NH_4)_2C_2O_4$

b. $NH_4C_2O_4$

d. $C_2O_4(NH_4)_2$

10. Which of the following is **NOT** a physical change?

a. Rusting

c. Breaking

b. Slicing

d. Melting

11. What is the volume of the liquid?



- a. 6.1 mL
- b. 6.5 mL

- c. 6.2 mL
- d. 6.6 mL
- 12. Classify sodium nitrate as what type of representative particle?
 - a. formula unit

c. ion

b. atom

- d. molecule
- 13. Classify the type of reaction: Ca + $O_2 \rightarrow CaO$
 - a. double replacement

c. decomposition

b. synthesis

- d. combustion
- 14. What piece of equipment is used to transfer solid chemicals?
 - a. test tube tongs

c. funnel

b. scoopula

- d. micropipette
- 15. Elements will emit light when:
 - a. they absorb energy.
 - b. they fall from the ground state to the excited state.
 - c. they gain energy from the ground state to the excited state.
 - d. they fall from the excited state to the ground state.
- 16. Arrange the following elements: P³⁻, S²⁻, K⁺, Ca²⁺, Sc³⁺, in order of increasing ionic size.
 - a. Sc^{3+} , Ca^{2+} , K^+ , S^{2-} , P^{3-}

c. Sc³⁺, Ca²⁺, K⁺, P³⁻, S²⁻

b. P^{3-} , S^{2-} , K^+ , Ca^{2+} , Sc^{3+}

- d. K⁺, Ca²⁺, Sc³⁺, S²⁻, P³⁻
- 17. Which of the following is a homogeneous mixture?
 - a. Raisin Bread

c. Salt water

b. Beef Stew

d. Chocolate chip cookie

18. Which equation correctly represents the <u>alpha decay</u> of Polonium-214

$$^{214}_{84}$$
Po $\rightarrow ^{214}_{85}$ Po $^{+0}_{-1}$ e

$$^{214}_{84}$$
Po + $^{2}_{4}$ He $\rightarrow ^{216}_{90}$ Th

$$^{214}_{84}P_0 \rightarrow ^{214}_{82}P_b + ^{0}_{2}He$$

19. What is the polarity of SiO₂?

a. ionic

b.

polar

d.

b. nonpolar

20. LiOH + $H_3PO_4 \rightarrow Li_3PO_4 + H_2O$ Classify the type of reaction.

combustion

b. neutralization

21. Choose the correct name for SnS₂

Tin sulfide

Tin disulfide

single replacement

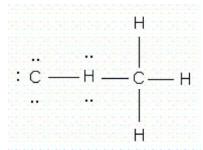
double replacement

Tin (IV) sulfide c.

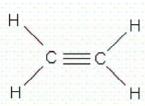
Tin (II) sulfide

22.

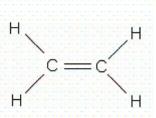
Which of the following is the correct Lewis structure for ethylene, C₂H₄?



a.



c.



This piece of equipment is used to heat small amount of substances at high temperatures.

hot plate

crucible and cover

beaker

graduated cylinder

24. What is the correct name for the following N₂O₄?

nitrogen tetraoxide

dinitrogen oxide

nitrogen (IV) oxide

dinitrogen tetroxide

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25. The following equation is an example of:

$${}^2_1H + {}^3_1H \rightarrow {}^4_2He + {}^1_0n + energy$$

fission reaction

- fusion reaction
- 26. Which of the following elements can exist as a diatomic molecule?
 - Br

P

Se b.

Se d.

Multiple Response

Identify one or more choices that best complete the statement or answer the question.

- 27. Which of the following are mixtures?
 - Gatorade

Salt

Diet Coke

- Iron
- The following compound, NaOH can be classifed as:
 - does not conduct electricity
- ionic compound

b. molecule

- formula unit
- does conduct electricity
- 29. The following compound, C_2H_2 , can be classifed as:
 - does conduct electricity
- ionic compound

molecule

- does not conduct electricity
- 30. What intermolecular forces are present in CH₃OH?
 - Dipole-Dipole

Hydrogen Bonding

Dispersion

- **Ionic Bonding**
- 31. Which groups below can be classified as representative elements?
 - halogens

all group B elements

noble gases

alkali earth metals

- 32. Covalent compounds are:
 - Electrons are shared.

Held together by intermolecular forces.

Electrons are transferred.

- b. Held together by electrostatic forces.
- At room temperature they are a solid,
 - liquid or gas.
- 33. Ionic compounds are:
 - Electrons are shared.

- Held together by intermolecular forces.
- b. Held together by electrostatic forces.
- Electrons are transferred.
- At room temperature they are a solid, liquid or gas.
- Formula units
- 34. Which of the following compounds are polar?
 - CH₃OH

HCN c.

b. C_2H_2

d. SiO_2

Matching

- a. chemical burn
- b. irritant
- c. thermal burn

- d. forceps
- e. beaker tongs
- f. funnel
- 35. This burn occurs when the skin or a mucous membrane is damaged by contact with a substance
- 36. NaOH



37.

38. This burn can occur if you touch a hot object or flame.



___ 39.

40.



Fall Semester Review Practice Test Answer Section

MULTIPLE CHOICE

1.	ANS:	A	PTS:	1
2.	ANS:	D	PTS:	1
3.	ANS:	C	PTS:	1
4.	ANS:	C	PTS:	1
5.	ANS:	C	PTS:	1
6.	ANS:	C	PTS:	1
7.	ANS:	В	PTS:	1
8.	ANS:	C	PTS:	1
9.	ANS:	C	PTS:	1
10.	ANS:	A	PTS:	1
11.	ANS:	D	PTS:	1
12.	ANS:	A	PTS:	1
13.	ANS:	В	PTS:	1
14.	ANS:	В	PTS:	1
15.	ANS:	D	PTS:	1
16.	ANS:	A	PTS:	1
17.	ANS:	C	PTS:	1
18.	ANS:	C	PTS:	1
19.	ANS:	В	PTS:	1
20.	ANS:	В	PTS:	1
21.	ANS:	C	PTS:	1
22.	ANS:	D	PTS:	1
23.	ANS:	C	PTS:	1
24.	ANS:	D	PTS:	1
25.	ANS:	В	PTS:	1
26.	ANS:	A	PTS:	1

MULTIPLE RESPONSE

27.	ANS:	A, B	PTS:	1
28.	ANS:	C, D, E	PTS:	1
29.	ANS:	B, D	PTS:	1
30.	ANS:	A, B, C	PTS:	1
31.	ANS:	A, B, D	PTS:	1
32.	ANS:	A, C, D	PTS:	1
33.	ANS:	B, E, F	PTS:	1
34.	ANS:	A, C	PTS:	1

MATCHING

35.	ANS:	A	PTS:	1
36.	ANS:	В	PTS:	1
37.	ANS:	E	PTS:	1
38.	ANS:	C	PTS:	1
39.	ANS:	F	PTS:	1
40.	ANS:	D	PTS:	1