

Fall Midterm Practice Test-Fall 2017**Matching**

***You will need your own calculator and pencil for the midterm. If you forget a calculator you will do the math by hand.**

***Question about the midterm will not be answered on the midterm day.**

***You need to start studying early.**

***Midterm is 15% of your grade!**

Match each item with the correct statement below.

- | | |
|------------|--------------------------|
| a. mixture | d. reactant |
| b. product | e. heterogeneous mixture |
| c. phase | f. vapor |

- _____ 1. gaseous state of substance that is a liquid or solid at room temperature
- _____ 2. a physical blend of two or more components
- _____ 3. not uniform in composition
- _____ 4. a substance formed in a chemical reaction
- _____ 5. starting substance in a chemical reaction

Match each item with the correct statement below.

- | | |
|---------------------|----------------|
| a. mass number | d. atomic mass |
| b. atomic mass unit | e. isotope |
| c. atomic number | |

- _____ 6. atoms with the same number of protons, but different numbers of neutrons in the nucleus of an atom
- _____ 7. the total number of protons and neutrons in the nucleus of an atom
- _____ 8. the number of protons in the nucleus of an element
- _____ 9. the weighted average of the masses of the isotopes of an element
- _____ 10. one-twelfth the mass of a carbon atom having six protons and six neutrons

Match each item with the correct statement below.

- | | |
|---------------------------|-------------------------------------|
| a. atomic orbital | d. ground state |
| b. aufbau principle | e. Pauli exclusion principle |
| c. electron configuration | f. Heisenberg uncertainty principle |

- _____ 11. region of high probability of finding an electron
- _____ 12. states the impossibility of knowing both velocity and position of a moving particle at the same time
- _____ 13. lowest energy level
- _____ 14. tendency of electrons to enter orbitals of lowest energy first
- _____ 15. arrangement of electrons around atomic nucleus
- _____ 16. each orbital has at most two electrons

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 17. A theory is a _____.
a. proposed explanation for an observation
b. well-tested explanation for a broad set of observations
c. summary of the results of many observations
d. procedure used to test a proposed explanation
- _____ 18. The variable that is observed during an experiment is called what type of variable?
a. independent
b. manipulated
c. controlling
d. responding
- _____ 19. Which of the following is NOT an example of matter?
a. air
b. heat
c. smoke
d. water vapor
- _____ 20. An example of an extensive property of matter is _____.
a. temperature
b. pressure
c. mass
d. hardness
- _____ 21. All of the following are physical properties of matter EXCEPT _____.
a. mass
b. color
c. melting point
d. ability to rust
- _____ 22. Which of the following is a physical change?
a. corrosion
b. explosion
c. evaporation
d. rotting of food
- _____ 23. Which of the following CANNOT be classified as a substance?
a. table salt
b. air
c. nitrogen
d. gold
- _____ 24. Which of the following is a homogeneous mixture?
a. salt water
b. beef stew
c. sand and water
d. soil
- _____ 25. Separating a solid from a liquid by evaporating the liquid is called _____.
a. filtration
b. condensation
c. solution
d. distillation
- _____ 26. Which of the following processes does NOT involve a change in chemical properties?
a. rusting
b. fermenting
c. boiling
d. burning
- _____ 27. A chemical change occurs when a piece of wood _____.
a. is split
b. is painted
c. decays
d. is cut
- _____ 28. Which of the following is a chemical property of water at 4°C?
a. its color
b. its state
c. its temperature
d. its ability to decompose into hydrogen and oxygen

- _____ 29. Which of the following indicates that a chemical change has happened during cooking?
- The food darkens.
 - Bubbles form in boiling water.
 - Butter melts.
 - Energy is transferred from the stove to a pan.
- _____ 30. Which of the following does NOT indicate that a chemical change may have taken place?
- fracture formation
 - gas production
 - precipitate formation
 - energy transfer
- _____ 31. The smallest particle of an element that retains the properties of that element is a(n) _____.
- atom
 - electron
 - proton
 - neutron
- _____ 32. Dalton's atomic theory included which idea?
- All atoms of all elements are the same size.
 - Atoms of different elements always combine in one-to-one ratios.
 - Atoms of the same element are always identical.
 - Individual atoms can be seen with a microscope.
- _____ 33. Why did J. J. Thomson reason that electrons must be a part of the atoms of all elements?
- Cathode rays are negatively-charged particles.
 - Cathode rays can be deflected by magnets.
 - An electron is 2000 times lighter than a hydrogen atom.
 - Charge-to-mass ratio of electrons was the same, regardless of the gas used.
- _____ 34. All atoms are _____.
- positively charged, with the number of protons exceeding the number of electrons
 - negatively charged, with the number of electrons exceeding the number of protons
 - neutral, with the number of protons equaling the number of electrons
 - neutral, with the number of protons equaling the number of electrons, which is equal to the number of neutrons
- _____ 35. As a consequence of the discovery of the nucleus by Rutherford, which model of the atom is thought to be true?
- Protons, electrons, and neutrons are evenly distributed throughout the volume of the atom.
 - The nucleus is made of protons, electrons, and neutrons.
 - Electrons are distributed around the nucleus and occupy almost all the volume of the atom.
 - The nucleus is made of electrons and protons.
- _____ 36. The nucleus of an atom is _____.
- the central core and is composed of protons and neutrons
 - positively charged and has more protons than neutrons
 - negatively charged and has a high density
 - negatively charged and has a low density
- _____ 37. What does the number 84 in the name krypton-84 represent?
- the atomic number
 - the mass number
 - the sum of the protons and electrons
 - twice the number of protons
- _____ 38. Isotopes of the same element have different _____.
- positions on the periodic table
 - chemical behavior
 - atomic numbers
 - mass numbers

- _____ 39. In which of the following sets is the symbol of the element, the number of protons, and the number of electrons given correctly?
- a. In, 49 protons, 49 electrons c. Cs, 55 protons, 132.9 electrons
b. Zn, 30 protons, 60 electrons d. F, 19 protons, 19 electrons
- _____ 40. Using the periodic table, determine the number of neutrons in ^{16}O .
- a. 4 c. 16
b. 8 d. 24
- _____ 41. Which of the following compounds contains the Mn^{3+} ion?
- a. MnS c. Mn_2O_3
b. MnBr_2 d. MnO
- _____ 42. Which of the following formulas represents an ionic compound?
- a. CS_2 c. N_2O_4
b. BaI_2 d. PCl_3
- _____ 43. Which of the following correctly represents an ion pair and the ionic compound the ions form?
- a. Ca^{2-} , F^- ; CaF_2 c. Ba^{2+} , O^{2-} ; Ba_2O_2
b. Na^+ , Cl^- ; NaCl_2 d. Pb^{4+} , O^{2-} ; Pb_2O_4
- _____ 44. Which set of chemical name and chemical formula for the same compound is correct?
- a. iron(II) oxide, Fe_2O_3 c. tin(IV) bromide, SnBr_4
b. aluminum fluorate, AlF_3 d. potassium chloride, K_2Cl_2
- _____ 45. What is the correct formula for potassium sulfite?
- a. KHSO_3 c. K_2SO_3
b. KHSO_4 d. K_2SO_4
- _____ 46. Which set of chemical name and chemical formula for the same compound is correct?
- a. ammonium sulfite, $(\text{NH}_4)_2\text{S}$ c. lithium carbonate, LiCO_3
b. iron(III) phosphate, FePO_4 d. magnesium dichromate, MgCrO_4
- _____ 47. Molecular compounds are usually ____.
- a. composed of two or more transition elements
b. composed of positive and negative ions
c. composed of two or more nonmetallic elements
d. exceptions to the law of definite proportions
- _____ 48. Which of the following shows both the correct formula and correct name of an acid?
- a. HClO_2 , chloric acid c. H_3PO_4 , phosphoric acid
b. HNO_2 , hydronitrous acid d. HI , iodic acid
- _____ 49. What is the name of H_2SO_3 ?
- a. hyposulfuric acid c. sulfuric acid
b. hydrosulfuric acid d. sulfurous acid
- _____ 50. What is the formula for phosphoric acid?
- a. H_2PO_3 c. HPO_2
b. H_3PO_4 d. HPO_4

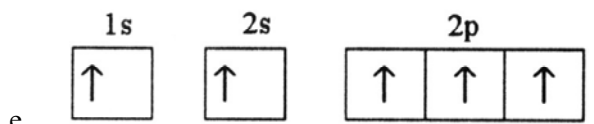
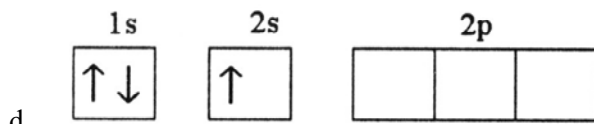
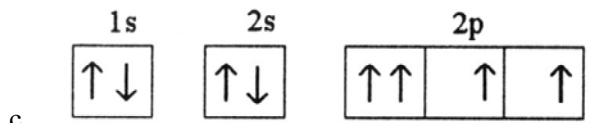
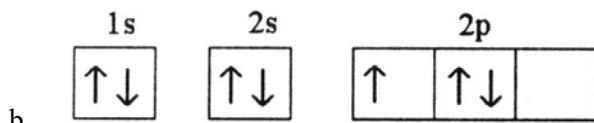
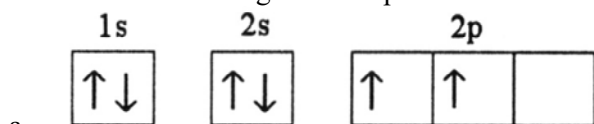
_____ 76. The ground state electron configuration of Ga is _____.

- $1s^2 2s^2 3s^2 3p^6 4s^2 3d^{10} 4p^1$
- $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 4d^{10} 4p^1$
- $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^1$
- $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4d^1$
- $[\text{Ar}] 4s^2 3d^{11}$

_____ 77. The ground-state electron configuration of _____ is $[\text{Ar}] 4s^2 3d^4$.

- V
- Mn
- Fe
- Cr
- K

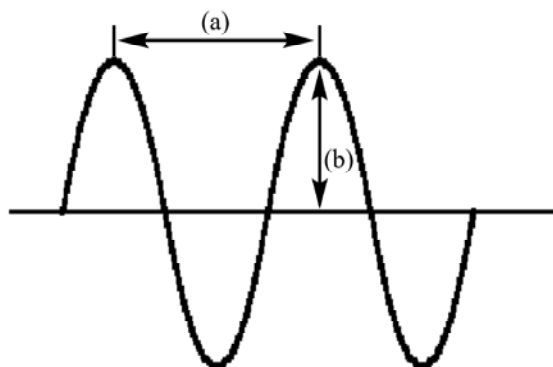
_____ 78. Which electron configuration represents a violation of Hund's rule for an atom in its ground state?



_____ 79. The noble gas electron configuration of argon, element 18, is _____.

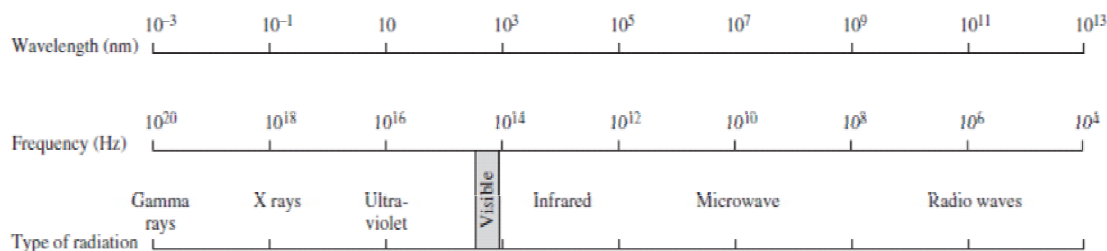
- $[\text{Ne}] 3s^4$
- $[\text{Ar}] 3s^2 3p^2$
- $[\text{Ne}] 3s^2 3p^6$
- $[\text{He}] 2s^4 2p^{10}$
- $[\text{He}] 3s^4$

___ 80. In the following diagram of a wave



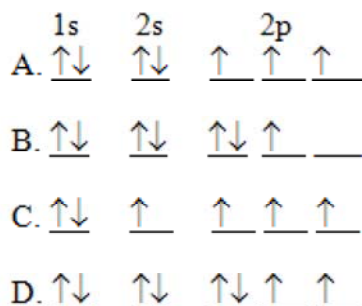
- (a) is amplitude and (b) is wavelength
- (a) is frequency and (b) is amplitude
- (a) is wavelength and (b) is frequency
- (a) is wavelength and (b) is amplitude

___ 81. Using the figure below, which radiation has the longest wavelength?



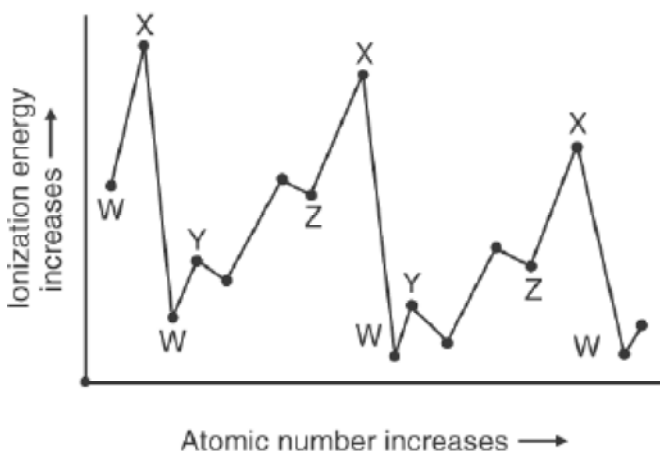
- Gamma rays
- X rays
- Ultraviolet
- Microwave

___ 82. The orbital diagram for a ground-state nitrogen atom is



- A
- B
- C
- D

83. Arrange the following elements: P^{3-} , S^{2-} , K^+ , Ca^{2+} , Sc^{3+} , in order of increasing ionic size.
- K^+ , Ca^{2+} , Sc^{3+} , S^{2-} , P^{3-}
 - P^{3-} , S^{2-} , K^+ , Ca^{2+} , Sc^{3+}
 - Sc^{3+} , Ca^{2+} , K^+ , P^{3-} , S^{2-}
 - Sc^{3+} , Ca^{2+} , K^+ , S^{2-} , P^{3-}
84. What element in the second period has the largest atomic radius?
- lithium
 - neon
 - carbon
 - potassium
85. Which of the following has the smallest atomic radius?
- bromine
 - selenium
 - sulfur
 - oxygen
86. Which group of elements are the most electronegative?
- Transition metals
 - Alkali metals
 - Noble gases
 - Halogens
87. What is the element with the lowest electronegativity value?
- helium
 - calcium
 - cesium
 - fluorine



88. The chart above shows the relationship between the first ionization energy and the increase in atomic number. The letter on the chart for the alkali family of elements is
- Z
 - Y
 - X
 - W
89. Which element would have a higher tendency to attract electrons.
- Fluorine
 - Selenium
90. Barium is a larger atom than Calcium. Which of the following is the *BEST* explanation why this occurs?
- Barium only has two valence electrons
 - Barium has two more energy levels than calcium
 - Barium has more electrons than calcium
 - Barium more electrons and protons and more attraction
91. Which statement is true about electronegativity?
- Electronegativity generally increases as you move from top to bottom within a group.
 - Electronegativity is the ability of an anion to attract another anion.
 - Electronegativity generally increases from left to right across a period.
 - Electronegativity generally is higher for metals than for nonmetals.

- _____ 92. Which of the following factors contributes to the decrease in ionization energy within a group in the periodic table as the atomic number increases?
- fewer electrons in the highest occupied energy level
 - increase in number of protons
 - increase in size of the nucleus
 - increase in atomic size
- _____ 93. Atomic size generally _____.
- decreases as you move from left to right across a period
 - increases as you move from left to right across a period
 - decreases as you move from top to bottom within a group
 - remains constant within a period
- _____ 94. How does shielding affect the relative atomic size of element in the same period?
- An increase in the degree of shielding due to an increase attraction to the nucleus causes a decrease in atomic size.
 - An increase in the degree of shielding due to an increase attraction to the nucleus causes an increase in atomic size.
 - Shielding has no effect on relative atomic size within a period.
 - Shielding has effect on the relative atomic size within a period and decreases
- _____ 95. Which of the following elements has the smallest atomic radius?
- chlorine
 - sulfur
 - bromine
 - selenium
- _____ 96. Which of the following sets of symbols represents isotopes of the same element?
- ${}_{42}^{91}\text{J}$ ${}_{42}^{92}\text{J}$ ${}_{40}^{93}\text{J}$
 - ${}_{38}^{84}\text{M}$ ${}_{38}^{86}\text{M}$ ${}_{38}^{87}\text{M}$
 - ${}_{59}^{138}\text{Q}$ ${}_{55}^{133}\text{Q}$ ${}_{54}^{133}\text{Q}$
 - ${}_{19}^{50}\text{L}$ ${}_{20}^{50}\text{L}$ ${}_{21}^{50}\text{L}$

Multiple Response

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

- _____ 97. A anion:
- ends in -ide
 - is a nonmetal
 - positive charge
 - gains electrons
- _____ 98. A molecule:
- is a covalent compound
 - is composed of nonmetals
 - is composed of metals and nonmetals
 - does not conduct electricity
- _____ 99. Which of the following acids start with hydro-?
- HF
 - H₂SO₄
 - HCl
 - H₂SO₃
- _____ 100. Ionic compounds are:
- formula units
 - good conductors of electricity
 - electrically neutral
 - composed of nonmetals

Fall Midterm Practice Test-Fall 2017 Answer Section

MATCHING

- | | | | | |
|-----|------------------------------|------------------------|---------|----------------------|
| 1. | ANS: F
OBJ: 2.1.3 | PTS: 1 | DIF: L1 | REF: p. 42 |
| 2. | ANS: A
OBJ: 2.2.1 | PTS: 1
STA: Ch.6 | DIF: L1 | REF: p. 44 |
| 3. | ANS: E
OBJ: 2.2.2 | PTS: 1 | DIF: L1 | REF: p. 45 |
| 4. | ANS: B
OBJ: 2.4.1 | PTS: 1
STA: Ch.8 | DIF: L1 | REF: p. 53 |
| 5. | ANS: D
OBJ: 2.4.1 | PTS: 1
STA: Ch.8 | DIF: L1 | REF: p. 53 |
| 6. | ANS: E
OBJ: 4.3.1 | PTS: 1
STA: Ch.11.c | DIF: L1 | REF: p. 112 |
| 7. | ANS: A
OBJ: 4.3.1 | PTS: 1
STA: Ch.1.e | DIF: L1 | REF: p. 111 |
| 8. | ANS: C
OBJ: 4.3.1 | PTS: 1
STA: Ch.1.a | DIF: L1 | REF: p. 110 |
| 9. | ANS: D
OBJ: 4.3.3 | PTS: 1
STA: Ch.1.a | DIF: L1 | REF: p. 114 |
| 10. | ANS: B
OBJ: 4.3.3 | PTS: 1 | DIF: L1 | REF: p. 114 |
| 11. | ANS: A
OBJ: 5.1.2 | PTS: 1
STA: Ch.1.e | DIF: L1 | REF: p. 130 p. 131 |
| 12. | ANS: F
OBJ: 5.1.3 | PTS: 1
STA: Ch.1.e | DIF: L1 | REF: p. 145 |
| 13. | ANS: D
OBJ: 5.1.3 | PTS: 1
STA: Ch.1.j | DIF: L1 | REF: p. 142 |
| 14. | ANS: B
OBJ: 5.1.3 5.2.1 | PTS: 1
STA: Ch.1.j | DIF: L1 | REF: p. 133 |
| 15. | ANS: C
OBJ: 5.2.1 | PTS: 1
STA: Ch.1.e | DIF: L1 | REF: p. 133 |
| 16. | ANS: E
OBJ: 5.2.1 | PTS: 1
STA: Ch.1.e | DIF: L1 | REF: p. 134 |

MULTIPLE CHOICE

- | | | | | |
|-----|----------------------|--------|---------|------------|
| 17. | ANS: B
OBJ: 1.3.2 | PTS: 1 | DIF: L1 | REF: p. 23 |
| 18. | ANS: D
OBJ: 1.3.2 | PTS: 1 | DIF: L2 | REF: p. 22 |

19.	ANS: B OBJ: 2.1.1	PTS: 1	DIF: L1	REF: p. 39
20.	ANS: C OBJ: 2.1.1	PTS: 1	DIF: L1	REF: p. 39
21.	ANS: D OBJ: 2.1.2	PTS: 1	DIF: L1	REF: p. 40
22.	ANS: C OBJ: 2.1.4	PTS: 1	DIF: L2	REF: p. 42
23.	ANS: B OBJ: 2.2.1	PTS: 1 STA: Ch.6	DIF: L2	REF: p. 40
24.	ANS: A OBJ: 2.2.2	PTS: 1 STA: Ch.6	DIF: L2	REF: p. 45
25.	ANS: D OBJ: 2.2.3	PTS: 1	DIF: L2	REF: p. 46
26.	ANS: C OBJ: 2.4.1	PTS: 1	DIF: L2	REF: p. 53
27.	ANS: C OBJ: 2.4.1	PTS: 1	DIF: L2	REF: p. 53
28.	ANS: D OBJ: 2.4.1	PTS: 1	DIF: L2	REF: p. 53
29.	ANS: A OBJ: 2.1.4 2.4.1 2.4.2	PTS: 1	DIF: L2	REF: p. 54
30.	ANS: A OBJ: 2.1.4 2.4.2	PTS: 1	DIF: L2	REF: p. 54
31.	ANS: A OBJ: 4.1.1 4.1.2	PTS: 1	DIF: L1	REF: p. 101 p. 102
32.	ANS: C OBJ: 4.1.2	PTS: 1	DIF: L2	REF: p. 102
33.	ANS: D OBJ: 4.2.1	PTS: 1 STA: Ch.1.h	DIF: L2	REF: p. 105
34.	ANS: C OBJ: 4.2.1	PTS: 1 STA: Ch.1	DIF: L3	REF: p. 106
35.	ANS: C OBJ: 4.2.2	PTS: 1 STA: Ch.1.h	DIF: L2	REF: p. 108
36.	ANS: A OBJ: 4.2.2	PTS: 1 STA: Ch.1.e	DIF: L2	REF: p. 107 p. 108
37.	ANS: B OBJ: 4.3.1	PTS: 1 STA: Ch.1.a Ch.11.c	DIF: L1	REF: p. 111
38.	ANS: D OBJ: 4.3.1	PTS: 1 STA: Ch.11.c	DIF: L1	REF: p. 112 p. 113
39.	ANS: A OBJ: 4.2.1 4.3.1	PTS: 1 STA: Ch.1.a	DIF: L2	REF: p. 110
40.	ANS: B OBJ: 4.3.1 4.3.4	PTS: 1 STA: Ch.1.a	DIF: L2	REF: p. 111
41.	ANS: C OBJ: 9.2.1	PTS: 1 STA: Ch.2	DIF: L1	REF: p. 262 p. 263
42.	ANS: B OBJ: 9.2.1	PTS: 1 STA: Ch.2	DIF: L2	REF: p. 262

43.	ANS: A OBJ: 9.2.1	PTS: 1 STA: Ch.2	DIF: L2	REF: p. 262
44.	ANS: C OBJ: 9.2.1	PTS: 1 STA: Ch.2	DIF: L2	REF: p. 261 p. 262
45.	ANS: C OBJ: 9.2.2	PTS: 1 STA: Ch.2	DIF: L2	REF: p. 257 p. 261 p. 262
46.	ANS: B OBJ: 9.1.3 9.2.2	PTS: 1 STA: Ch.2	DIF: L2	REF: p. 264 p. 265 p. 266
47.	ANS: C OBJ: 9.3.1 9.3.2	PTS: 1 STA: Ch.2.a	DIF: L1	REF: p. 268
48.	ANS: C OBJ: 9.4.1	PTS: 1 STA: Ch.5	DIF: L2	REF: p. 272
49.	ANS: D OBJ: 9.4.1	PTS: 1 STA: Ch.5	DIF: L2	REF: p. 272
50.	ANS: B OBJ: 9.4.2	PTS: 1 STA: Ch.5	DIF: L2	REF: p. 272
51.	ANS: D OBJ: 9.2.1 9.5.2	PTS: 1 STA: Ch.5	DIF: L2	REF: p. 261 p. 262 p. 277
52.	ANS: C OBJ: 9.2.2 9.5.2	PTS: 1 STA: Ch.5	DIF: L3	REF: p. 257 p. 264
53.	ANS: B OBJ: 9.3.2 9.5.3	PTS: 1 STA: Ch.2.b Ch.5	DIF: L2	REF: p. 269 p. 277
54.	ANS: C OBJ: 25.1.2	PTS: 1 STA: Ch.11.d	DIF: L1	REF: p. 800
55.	ANS: C OBJ: 25.1.2	PTS: 1 STA: Ch.11.e	DIF: L1	REF: p. 802
56.	ANS: D OBJ: 25.1.2 25.2.1	PTS: 1 STA: Ch.11.d	DIF: L2	REF: p. 800 p. 804
57.	ANS: C OBJ: 25.2.1	PTS: 1 STA: Ch.11.d	DIF: L3	REF: p. 803 p. 804
58.	ANS: D OBJ: 25.3.3	PTS: 1 STA: Ch.11.b	DIF: L1	REF: p. 813
59.	ANS: B OBJ: 5.1.3	PTS: 1 STA: Ch.1.i	DIF: L2	REF: p. 131
60.	ANS: D OBJ: 5.1.3	PTS: 1 STA: Ch.1.i	DIF: L2	REF: p. 131 p. 132
61.	ANS: B OBJ: 5.1.3	PTS: 1 STA: Ch.1.i	DIF: L3	REF: p. 132
62.	ANS: C OBJ: 5.1.3	PTS: 1 STA: Ch.1.i	DIF: L3	REF: p. 128
63.	ANS: C OBJ: 5.2.1	PTS: 1 STA: Ch.1.i	DIF: L1	REF: p. 134
64.	ANS: C OBJ: 5.2.1	PTS: 1 STA: Ch.1.i	DIF: L2	REF: p. 131
65.	ANS: D OBJ: 5.2.1	PTS: 1 STA: Ch.1.g	DIF: L2	REF: p. 133 p. 134 p. 135
66.	ANS: A OBJ: 5.2.1	PTS: 1 STA: Ch.1.g Ch.1.i	DIF: L3	REF: p. 134

67.	ANS: C OBJ: 5.2.1	PTS: 1 STA: Ch.1.g	DIF: L3	REF: p. 133 p. 134
68.	ANS: A OBJ: 5.2.1	PTS: 1 STA: Ch.1.g	DIF: L3	REF: p. 133 p. 134
69.	ANS: D OBJ: 5.3.1	PTS: 1 STA: Ch.1.j	DIF: L2	REF: p. 139
70.	ANS: D OBJ: 5.3.1	PTS: 1 STA: Ch.1.j	DIF: L2	REF: p. 139
71.	ANS: A OBJ: 5.3.2	PTS: 1 STA: Ch.1.j	DIF: L2	REF: p. 141
72.	ANS: A OBJ: 5.3.2 5.3.3	PTS: 1 STA: Ch.1.j	DIF: L2	REF: p. 141
73.	ANS: A OBJ: 5.3.3	PTS: 1 STA: Ch.1.j	DIF: L2	REF: p. 143
74.	ANS: B OBJ: 5.3.3	PTS: 1 STA: Ch.1.j	DIF: L3	REF: p. 143
75.	ANS: B OBJ: 5.3.4	PTS: 1 STA: Ch.1.i	DIF: L1	REF: p. 130
76.	ANS: C OBJ: 6.8; G2	PTS: 1	DIF: 2	REF: Page Ref: 6.8
77.	ANS: D OBJ: 6.8; G2	PTS: 1	DIF: 2	REF: Page Ref: 6.8
78.	ANS: B OBJ: 6.8; G2	PTS: 1	DIF: 2	REF: Page Ref: 6.8
79.	ANS: C OBJ: 6.9; G2	PTS: 1	DIF: 2	REF: Page Ref: 6.8
80.	ANS: D OBJ: EK.1.D.3	PTS: 1	DIF: Easy	REF: Section: 7.1
81.	ANS: D OBJ: EK.1.D.3	PTS: 1	DIF: Medium	REF: Section: 7.1
82.	ANS: A OBJ: EK.1.B.2	PTS: 1	DIF: Medium	REF: Section: 7.8
83.	ANS: D	PTS: 1		
84.	ANS: A OBJ: 6.3.1	PTS: 1 STA: Ch.1.a	DIF: L2	REF: p. 171
85.	ANS: D	PTS: 1		
86.	ANS: D	PTS: 1		
87.	ANS: C OBJ: 6.3.3	PTS: 1 STA: Ch.1.c	DIF: L1	REF: p. 177
88.	ANS: D 1c			
		PTS: 1 STA: 1c		
89.	ANS: A	PTS: 1		
90.	ANS: B	PTS: 1		
91.	ANS: C OBJ: 6.3.3	PTS: 1 STA: Ch.1.c	DIF: L2	REF: p. 177

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|-----|--------------------|--------------|---------|----------------------|
| 92. | ANS: D | PTS: 1 | DIF: L2 | REF: p. 174 |
| | OBJ: 6.3.1 6.3.3 | STA: Ch.1.c | | |
| 93. | ANS: A | PTS: 1 | DIF: L2 | REF: p. 171 |
| | OBJ: 6.3.1 | STA: Ch.1.a | | |
| 94. | ANS: C | PTS: 1 | | |
| 95. | ANS: A | PTS: 1 | DIF: L3 | REF: p. 171 p. 175 |
| | OBJ: 6.3.1 | STA: Ch.1.a | | |
| 96. | ANS: B | PTS: 1 | DIF: L3 | REF: p. 112 p. 113 |
| | OBJ: 4.3.1 | STA: Ch.11.c | | |

MULTIPLE RESPONSE

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| 97. | ANS: A, B, D | PTS: 1 |
| 98. | ANS: A, B, D | PTS: 1 |
| 99. | ANS: A, C | PTS: 1 |
| 100. | ANS: A, B, C | PTS: 1 |