Chemistry
1st Semester Practice Exam

1. In the following list, only __________ is not an example of matter.
   A. planets
   B. light
   C. dust
   D. elemental phosphorus
   E. table salt

2. What is the physical state in which matter has no specific shape but does have a specific volume?
   A. gas
   B. solid
   C. liquid
   D. salts
   E. ice

3. A combination of sand, salt, and water is an example of a __________.
   A. homogeneous mixture
   B. heterogeneous mixture
   C. compound
   D. pure substance
   E. solid

4. Which one of the following is a pure substance?
   A. concrete
   B. wood
   C. salt water
   D. elemental copper
   E. milk

5. Which one of the following is often easily separated into its components by simple techniques such as filtering or decanting?
   A. heterogeneous mixture
   B. compounds
   C. homogeneous mixture
   D. elements
   E. solutions

6. An element cannot __________.
   A. be part of a heterogeneous mixture
   B. be part of a homogeneous mixture
   C. be separated into other substances by chemical means
   D. interact with other elements to form compounds
   E. be a pure substance

7. In the following list, only __________ is not an example of a chemical reaction.
   A. dissolution of a penny in nitric acid
   B. the condensation of water vapor
   C. a burning candle
   D. the formation of polyethylene from ethylene
   E. the explosive reaction of hydrogen with oxygen, which produces water,

8. Which one of the following is not a physical property of water?
   A. It boils at 100°C at 1 atm pressure.
   B. It freezes at 0°C at 1 atm pressure.
   C. It is clear and colorless.
   D. Water exists in solid, liquid and gaseous forms.
   E. It reacts rapidly with potassium metal to form potassium hydroxide.

9. Which of the following is a physical property of sodium chloride?
   A. It is a solid at room temperature.
   B. It dissolves in water.
   C. It melts at a high temperature.
   D. It is not significantly compressible.
   E. All of the above are physical properties of sodium chloride.

10. Of the following, only __________ is a chemical reaction.
   A. melting of lead
   B. dissolving sugar in water
   C. tarnishing of silver
   D. crushing of stone
   E. dropping a penny into a glass of water

http://www.kentschools.net/ccarman/cp-chemistry/exams/
11. The SI unit for mass is __________.
   A. kilogram
   B. gram
   C. pound
   D. troy ounce
   E. none of the above

12. Of the following, __________ is the smallest mass.
   A. 25 kg
   B. $2.5 \times 10^{-2}$ mg
   C. $2.5 \times 10^{15}$ pg
   D. $2.5 \times 10^{9}$ fg
   E. $2.5 \times 10^{10}$ ng

13. The temperature of 25°C is __________ in Kelvins.
   A. 103
   B. 138
   C. 166
   D. 248
   E. 298

14. Which of the following shows the relative temperatures correctly?
   A. 12°C > 310 K
   B. 43°C < 300 K
   C. 25°C > 250 K
   D. 158°C > 450 K
   E. All of the above show the relative temperatures correctly.

15. 1 nanometer = __________ picometers
   A. 1000
   B. 0.1
   C. 0.01
   D. 1
   E. 10

16. 1 kilogram = __________ milligrams
   A. $1 \times 10^{-6}$
   B. 1,000
   C. 10,000
   D. 1,000,000
   E. none of the above

17. "Absolute zero" refers to __________.
   A. 0 Kelvin
   B. 0°F Fahrenheit
   C. 0°C Celsius
   D. $°C + 9/5 (°F - 32)$
   E. 273.15°C

18. A scientific __________ is a concise statement or an equation that summarizes a broad variety of observations.
   A. law
   B. hypothesis
   C. theory
   D. trend
   E. pattern

19. The initial or tentative explanation of an observation is called a(n) __________.
   A. law
   B. theory
   C. hypothesis
   D. experiment
   E. test

20. What is the volume of a 12.2 g piece of metal with a density of 9.43 g/cm³?
   A. 12.2 cm³
   B. 1.29 cm³
   C. 0.773 cm³
   D. 115 cm³
   E. none of the above

21. The density of silver is 10.5 g/cm³. What would be the mass (in grams) of a piece of silver that occupies a volume of 23.6 cm³?
   A. 248
   B. 0.445
   C. 2.25
   D. 112
   E. 23.6

http://www.kentschools.net/ccarman/cp-chemistry/exams/
22. Precision refers to __________.
   A. how close a measured number is to other measured numbers
   B. how close a measured number is to the true value
   C. how close a measured number is to the calculated value
   D. how close a measured number is to zero
   E. how close a measured number is to infinity

23. Accuracy refers to __________.
   A. how close a measured number is to zero
   B. how close a measured number is to the calculated value
   C. how close a measured number is to other measured numbers
   D. how close a measured number is to the true value
   E. how close a measured number is to infinity

24. Which of the following is the same as 0.001 cm?
   A. 0.01 mm
   B. 0.01 dm
   C. 0.01 m
   D. 100 mm
   E. 1 mm

25. Which one of the following is not one of the postulates of Dalton's atomic theory?
   A. Each element is composed of tiny, indivisible particles called atoms.
   B. All atoms of a given element are identical to each other and different from those of other elements.
   C. During a chemical reaction, atoms are changed into atoms of different elements.
   D. Compounds are formed when atoms of different elements combine.
   E. Atoms of an element are not changed into different types of atoms by chemical reactions.

26. The charge on an electron was determined in the __________.
   A. cathode ray tube, by J. J. Thompson
   B. Rutherford gold foil experiment
   C. Millikan oil drop experiment
   D. Dalton atomic theory
   E. atomic theory of matter

27. The gold foil experiment performed in Rutherford's lab __________.
   A. confirmed the plum-pudding model of the atom
   B. led to the discovery of the atomic nucleus
   C. was the basis for Thompson's model of the atom
   D. utilized the deflection of beta particles by gold foil
   E. proved the law of multiple proportions

28. __________ and __________ reside in the atomic nucleus.
   A. Protons, electrons
   B. Electrons, neutrons
   C. Protons, neutrons
   D. none of the above
   E. Neutrons, only neutrons

29. Cathode rays are __________.
   A. neutrons
   B. x-rays
   C. electrons
   D. protons
   E. atoms

30. Of the following, the smallest and lightest subatomic particle is the __________.
   A. neutron
   B. proton
   C. electron
   D. nucleus
   E. alpha particle
31. All atoms of a given element have the same __________.
   A. mass
   B. number of protons
   C. number of neutrons
   D. number of electrons and neutrons
   E. density

32. The atomic number indicates __________.
   A. the number of neutrons in a nucleus
   B. the total number of neutrons and protons in a nucleus
   C. the number of protons or electrons in a neutral atom
   D. the number of atoms in 1 g of an element
   E. the number of different isotopes of an element

33. Which atom has the smallest number of neutrons?
   A. carbon-14
   B. nitrogen-14
   C. oxygen-16
   D. fluorine-19
   E. neon-20

34. Which atom has the largest number of neutrons?
   A. phosphorous-30
   B. chlorine-37
   C. potassium-39
   D. argon-40
   E. calcium-40

35. There are __________ electrons, __________ protons, and __________ neutrons in an atom of $^{132}_{54}$Xe.
   A. 132, 132, 54
   B. 54, 54, 132
   C. 78, 78, 54
   D. 54, 54, 78
   E. 78, 78, 132

36. An atom of the most common isotope of gold, $^{197}_{79}$Au, has __________ protons, __________ neutrons, and __________ electrons.
   A. 197, 79, 118
   B. 118, 79, 39
   C. 79, 197, 197
   D. 79, 118, 118
   E. 79, 118, 79

37. Isotopes are atoms that have the same number of __________ but differing number of __________.
   A. protons, electrons
   B. neutrons, protons
   C. protons, neutrons
   D. electrons, protons
   E. neutrons, electrons

38. The nucleus of an atom contains __________.
   A. electrons
   B. protons, neutrons, and electrons
   C. protons and neutrons
   D. protons and electrons
   E. protons

39. The nucleus of an atom does not contain __________.
   A. protons
   B. protons or neutrons
   C. neutrons
   D. subatomic particles
   E. electrons

40. In the symbol below, $X = $ __________.
   $$^{13}_{6}X$$
   A. N
   B. C
   C. Al
   D. K
   E. not enough information to determine
41. In the periodic table, the rows are called ________ and the columns are called ________.
   A. octaves, groups
   B. staffs, families
   C. periods, groups
   D. cogeners, families
   E. rows, groups

42. Elements in Group 1A are known as the ________.
   A. chalcogens
   B. alkaline earth metals
   C. alkali metals
   D. halogens
   E. noble gases

43. Elements in Group 7A are known as the ________.
   A. chalcogens
   B. alkali metals
   C. alkaline earth metals
   D. halogens
   E. noble gases

44. Elements in Group 8A are known as the ________.
   A. halogens
   B. alkali metals
   C. alkaline earth metals
   D. chalcogens
   E. noble gases

45. ________ are found uncombined, as monatomic species in nature.
   A. Noble gases
   B. Chalcogens
   C. Alkali metals
   D. Alkaline earth metals
   E. Halogens

46. When a metal and a nonmetal react, the ________ tends to lose electrons and the ________ tends to gain electrons.
   A. metal, metal
   B. nonmetal, nonmetal
   C. metal, nonmetal
   D. nonmetal, metal
   E. None of the above, these elements share electrons.

47. Which one of the following is most likely to lose electrons when forming an ion?
   A. F
   B. P
   C. Rh
   D. S
   E. N

48. ________ typically form ions with a 2+ charge.
   A. Alkaline earth metals
   B. Halogens
   C. Chalcogens
   D. Alkali metals
   E. Transition metals

49. The correct name for N₂O₅ is ________.
   A. nitrous oxide
   B. nitrogen pentoxide
   C. dinitrogen pentoxide
   D. nitric oxide
   E. nitrogen oxide

50. The correct name for SrO is ________.
   A. strontium oxide
   B. strontium hydroxide
   C. strontium peroxide
   D. strontium monoxide
   E. strontium dioxide
51. Which group of elements is most likely to form ions by losing one electron?
   A. v
   B. x
   C. y
   D. z
   E. w

52. Element X reacts with sodium to form an ionic compound with the formula Na2X. Element X is a member of group __________.
   A. w
   B. x
   C. y
   D. z
   E. v

53. Of the choices below, which one is not an ionic compound?
   A. PCl5
   B. MoCl6
   C. RbCl
   D. PbCl2
   E. NaCl

54. Elements in Group 2A are known as the __________.
   A. alkaline earth metals
   B. alkali metals
   C. chalcogens
   D. halogens
   E. noble gases

55. The charge on the manganese in the salt MnF3 is __________.
   A. +1
   B. -1
   C. +2
   D. -2
   E. +3

56. Which of the following compounds would you expect to be ionic?
   A. H2O
   B. CO2
   C. SrCl2
   D. SO2
   E. H2S

57. Which formula/name pair is incorrect?
   A. Mn(NO2)2 manganese(II) nitrite
   B. Mg(NO3)2 magnesium nitrate
   C. Mn(NO3)2 manganese(II) nitrate
   D. Mg3N2 magnesium nitride
   E. Mg(MnO4)2 magnesium permanganate

58. The correct name for MgCl2 is __________.
   A. magnesium dichloride
   B. magnesium chloride
   C. magnesium chlorine
   D. magnesium chlorate
   E. magnesium perchlorate

59. The correct name for Al2O3 is __________.
   A. aluminum oxide
   B. dialuminum oxide
   C. dialuminum trioxide
   D. aluminum hydroxide
   E. aluminum trioxide

60. The correct name for CCl4 is __________.
   A. carbon chloride
   B. carbon tetrachlorate
   C. carbon perchlorate
   D. carbon tetrachloride
   E. carbon chlorate

http://www.kentschools.net/ccarman/cp-chemistry/exams/
61. The ions Ca²⁺ and PO₄³⁻ form a salt with the formula __________.
  A. CaPO₄
  B. Ca₂(PO₄)₃
  C. Ca₂PO₄
  D. Ca(PO₄)₂
  E. Ca₃(PO₄)₂

62. The suffix -ide is used __________.
  A. for monatomic anion names
  B. for polyatomic cation names
  C. for the name of the first element in a molecular compound
  D. to indicate binary acids
  E. for monoatomic cations

63. Which one of the following compounds is copper(I) chloride?
  A. CuCl
  B. CuCl₂
  C. Cu₂Cl
  D. Cu₂Cl₃
  E. Cu₃Cl₂

64. Which formula/name pair is incorrect?
  A. FeSO₄ iron(II) sulfate
  B. Fe₂(SO₃)₃ iron(III) sulfite
  C. FeS iron(II) sulfide
  D. FeSO₃ iron(II) sulfite
  E. Fe₂(SO₄)₃ iron(III) sulfite

65. Which of the following compounds would you expect to be ionic?
  A. SF₆
  B. H₂O
  C. H₂O₂
  D. NH₃
  E. CaO

66. Which metal does not require to have its charge specified in the names of ionic compounds it forms?
  A. Mn
  B. Fe
  C. Cu
  D. Ca
  E. Pb

67. When the following equation is balanced, the coefficients are __________.
   \[ \text{NH}_3 + \text{O}_2 \rightarrow \text{NO}_2 + \text{H}_2\text{O} \]
   A. 1, 1, 1, 1
   B. 4, 7, 4, 6
   C. 2, 3, 2, 3
   D. 1, 3, 1, 2
   E. 4, 3, 4, 3

68. When the following equation is balanced, the coefficients are __________.
   \[ \text{Al(NO}_3)_3 + \text{Na}_2\text{S} \rightarrow \text{Al}_2\text{S}_3 + \text{NaN}_3 \text{O}_3 \]
   A. 2, 3, 1, 6
   B. 2, 1, 3, 2
   C. 1, 1, 1, 1
   D. 4, 6, 3, 2
   E. 2, 3, 2, 3

69. When the following equation is balanced, the coefficient of H₂ is __________.
   \[ \text{K (s)} + \text{H}_2\text{O (l)} \rightarrow \text{KOH (aq)} + \text{H}_2 \text{(g)} \]
   A. 1
   B. 2
   C. 3
   D. 4
   E. 5
70. When the following equation is balanced, the coefficient of Al is __________.

\[
Al (s) + H_2O (l) \rightarrow Al(OH)_3 (s) + H_2 (g)
\]

A. 1  
B. 2  
C. 3  
D. 5  
E. 4

71. When the following equation is balanced, the coefficient of H_2O is __________.

\[
Ca (s) + H_2O (l) \rightarrow Ca(OH)_2 (aq) + H_2 (g)
\]

A. 1  
B. 2  
C. 3  
D. 5  
E. 4

72. When the following equation is balanced, the coefficient of Al_2O_3 is __________.

\[
Al_2O_3 (s) + C (s) + Cl_2 (g) \rightarrow AlCl_3 (s) + CO (g)
\]

A. 1  
B. 2  
C. 3  
D. 4  
E. 5

73. Of the reactions below, which one is not a combination reaction?

A. C + O_2 \rightarrow CO_2  
B. 2Mg + O_2 \rightarrow 2MgO  
C. 2N_2 + 3H_2 \rightarrow 2NH_3  
D. CaO + H_2O \rightarrow Ca(OH)_2  
E. 2CH_4 + 4O_2 \rightarrow 2CO_2 + 4H_2O

74. Of the reactions below, which one is a decomposition reaction?

A. NH_4Cl \rightarrow NH_3 + HCl  
B. 2Mg + O_2 \rightarrow 2MgO  
C. 2N_2 + 3H_2 \rightarrow 2NH_3  
D. 2CH_4 + 4O_2 \rightarrow 2CO_2 + 4H_2O  
E. Cd(NO_3)_2 + Na_2S \rightarrow CdS + 2NaNO_3

75. Which of the following are combustion reactions?

1) CH_4 (g) + O_2 (g) \rightarrow CO_2 (g) + H_2O (l)  
2) CaO (s) + CO_2 (g) \rightarrow CaCO_3 (s)  
3) PbCO_3 (s) \rightarrow PbO (s) + CO_2 (g)  
4) CH_3OH (l) + O_2 (g) \rightarrow CO_2 (g) + H_2O (l)

A. 1 and 4  
B. 1, 2, 3, and 4  
C. 1, 3, and 4  
D. 2, 3, and 4  
E. 3 and 4

76. The formula of nitrobenzene is C_6H_5NO_2. The molecular weight of this compound is __________ amu.

A. 107.11  
B. 43.03  
C. 109.10  
D. 123.11  
E. 3.06

77. The formula weight of potassium dichromate (K_2Cr_2O_7) is __________ amu.

A. 107.09  
B. 255.08  
C. 242.18  
D. 294.18  
E. 333.08

78. The formula weight of aluminum sulfate ([Al_2 SO_4]_3) is __________ amu.

A. 342.14  
B. 123.04  
C. 59.04  
D. 150.14  
E. 273.06
79. The molecular weight of the acetic acid (CH₃CO₂H) is __________ amu.
   A. 60
   B. 48
   C. 44
   D. 32

80. What is the mass % of carbon in dimethylsulfoxide (C₂H₆SO)?
   A. 60.0
   B. 20.6
   C. 30.7
   D. 7.74
   E. 79.8

81. The mass % of H in methane (CH₄) is __________.
   A. 25.13
   B. 4.032
   C. 74.87
   D. 92.26
   E. 7.743

82. How many molecules of CH₄ are in 48.2 g of this compound?
   A. 5.00 x 10⁻²⁴
   B. 3.00
   C. 2.90 x 10²⁵
   D. 1.81 x 10²⁴
   E. 4.00

83. What is the mass in grams of 9.76 x 10¹² atoms of naturally occurring sodium?
   A. 22.99
   B. 1.62 x 10⁻¹¹
   C. 3.73 x 10⁻¹⁰
   D. 7.05 x 10⁻¹³
   E. 2.24 x 10¹⁴

84. How many moles of carbon dioxide are there in 52.06 g of carbon dioxide?
   A. 0.8452
   B. 1.183
   C. 6.022 x 10²³
   D. 8.648 x 10²³
   E. 3.134 x 10²⁵

85. How many moles of sodium carbonate contain 1.773 x 10¹⁷ carbon atoms?
   A. 5.890 x 10⁻⁷
   B. 2.945 x 10⁻⁷
   C. 1.473 x 10⁻⁷
   D. 8.836 x 10⁻⁷
   E. 9.817 x 10⁻⁸

86. A 2.25-g sample of magnesium nitrate, Mg(NO₃)₂, contains __________ mol of this compound.
   A. 38.4
   B. 65.8
   C. 148.3
   D. 0.0261
   E. 0.0152

87. The molecular formula of aspartame, the generic name of NutraSweet, is C₁₄H₁₈N₂O₅. The molar mass of aspartame is __________ g.
   A. 24
   B. 156
   C. 294
   D. 43
   E. 39
88. Magnesium and nitrogen react in a combination reaction to produce magnesium nitride:

\[ 3 \text{ Mg} + \text{ N}_2 \rightarrow \text{ Mg}_3\text{N}_2 \]

In a particular experiment, a 9.27-g sample of N\textsubscript{2} reacts completely. The mass of Mg consumed is __________ g.
A. 8.04
B. 24.1
C. 16.1
D. 0.92
E. 13.9

89. The combustion of ammonia in the presence of excess oxygen yields NO\textsubscript{2} and H\textsubscript{2}O:

\[ 4 \text{ NH}_3 (g) + 7 \text{ O}_2 (g) \rightarrow 4 \text{ NO}_2 (g) + 6 \text{ H}_2\text{O} (g) \]

The combustion of 28.8 g of ammonia consumers __________ g of oxygen.
A. 94.9
B. 54.1
C. 108
D. 15.3
E. 28.8

90. The combustion of propane (C\textsubscript{3}H\textsubscript{8}) produces CO\textsubscript{2} and H\textsubscript{2}O:

\[ \text{C}_3\text{H}_8 (g) + 5\text{O}_2 (g) \rightarrow 3\text{CO}_2 (g) + 4\text{H}_2\text{O} (g) \]

The reaction of 2.5 mol of O\textsubscript{2} will produce __________ mol of H\textsubscript{2}O.
A. 4.0
B. 3.0
C. 2.5
D. 2.0
E. 1.0

91. Calcium carbide (CaC\textsubscript{2}) reacts with water to produce acetylene (C\textsubscript{2}H\textsubscript{2}):

\[ \text{CaC}_2 (s) + 2\text{H}_2\text{O} (g) \rightarrow \text{Ca(OH)}_2 (s) + \text{C}_2\text{H}_2 (g) \]

Production of 13g of C\textsubscript{2}H\textsubscript{2} requires consumption of __________ g of H\textsubscript{2}O.
A. 4.5
B. 9.0
C. 18
D. 4.8 x 10\textsuperscript{2}
E. 4.8 x 10\textsuperscript{-2}

92. The combustion of propane (C\textsubscript{3}H\textsubscript{8}) in the presence of excess oxygen yields CO\textsubscript{2} and H\textsubscript{2}O:

\[ \text{C}_3\text{H}_8 + 5\text{O}_2 \rightarrow 3\text{CO}_2 + 4\text{H}_2\text{O} \]

When 7.3 g of C\textsubscript{3}H\textsubscript{8} burns in the presence of excess O\textsubscript{2}, __________ g of CO\textsubscript{2} is produced.
A. 22
B. 7.3
C. 8.0 x 10\textsuperscript{2}
D. 2.4
E. 0.61

93. Under appropriate conditions, nitrogen and hydrogen undergo a combination reaction to yield ammonia:

\[ \text{N}_2 (g) + 3\text{H}_2 (g) \rightarrow 2\text{NH}_3 (g) \]

A 9.3-g sample of hydrogen requires __________ g of N\textsubscript{2} for a complete reaction.
A. 1.3 x 10\textsuperscript{2}
B. 2.0
C. 43
D. 3.9 x 10\textsuperscript{2}
E. 4.6
94. Water can be formed from the stoichiometric reaction of hydrogen with oxygen:

\[ 2\text{H}_2 (\text{g}) + \text{O}_2 (\text{g}) \rightarrow 2\text{H}_2\text{O} (\text{g}) \]

A complete reaction of 5.0 g of O₂ with excess hydrogen produces __________ g of H₂O.

A. 5.6
B. 2.8
C. 2.3 x 10²
D. 0.31
E. 11

95. What mass in grams of hydrogen is produced by the reaction of 4.73 g of magnesium with 1.83 g of water?

\[ \text{Mg} (\text{s}) + 2\text{H}_2\text{O} (\text{l}) \rightarrow \text{Mg(OH)}_2 (\text{s}) + \text{H}_2 (\text{g}) \]

A. 0.102
B. 0.0162
C. 0.0485
D. 0.219
E. 0.204

96. What is the maximum amount in grams of S O₃ that can be produced by the reaction of 1.0 g of S with 1.0 g of O₂ via the equation below?

\[ 2\text{S} (\text{s}) + 3\text{O}_2 (\text{g}) \rightarrow 2\text{SO}_3 (\text{g}) \]

A. 0.27
B. 1.7
C. 2.5
D. 3.8
E. 2.0

97. Solid aluminum and gaseous oxygen react in a combination reaction to produce aluminum oxide:

\[ 4\text{Al} (\text{s}) + 3\text{O}_2 (\text{g}) \rightarrow 2\text{Al}_2\text{O}_3 (\text{s}) \]

The maximum amount of Al₂O₃ that can be produced from 2.5 g of Al and 2.5 g of O₂ is __________ g.

A. 9.4
B. 7.4
C. 4.7
D. 5.3
E. 5.0

98. Sulfur and fluorine react in a combination reaction to produce sulfur hexafluoride:

\[ \text{S} (\text{s}) + 3\text{F}_2 (\text{g}) \rightarrow \text{SF}_6 (\text{g}) \]

In a particular experiment, the percent yield is 79.0%. This means that a 7.90-g sample of fluorine yields __________ g of SF₆ in the presence of excess sulfur.

A. 30.3
B. 10.1
C. 7.99
D. 24.0
E. 0.110

99. Sulfur and oxygen react in a combination reaction to produce sulfur trioxide, an environmental pollutant:

\[ 2\text{S} + 3\text{O}_2 \rightarrow 2\text{SO}_3 \]

In a particular experiment, the reaction of 1.0 g S with 1.0 g O₂ produced 0.80 g of SO₃. The % yield in this experiment is __________.

A. 30
B. 296
C. 21
D. 88
E. 48
1. B
2. C
3. B
4. D
5. A
6. C
7. B
8. E
9. A
10. D
11. A
12. E
13. B
14. C
15. A
16. D
17. E
18. A
19. C
20. B
21. A
22. D
23. B
24. E
25. C
26. C
27. B
28. C
29. C
30. C
31. B
32. C
33. B
34. D
35. D
36. E
37. C
38. C
39. C
40. B
41. C
42. D
43. E
44. A
45. C
46. E
47. A
48. C
49. A
50. A
51. A
52. C
53. A
54. E
55. C
56. D
57. B
58. A
59. D
60. E
61. B
62. A
63. E
64. D
65. E
66. D
67. B
68. A
69. A
70. B
71. B
72. A
73. E
74. A
75. D
76. B
77. D
78. A
79. B
80. C
81. A
82. D
83. C
84. B
85. B
86. E
87. C
88. B
89. A
90. D
91. C
92. A
93. C
94. A
95. A
96. B
97. C
98. C
99. E