Chapter 17
Practice SAT Chemistry Subject Test 2

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PRACTICE SAT CHEMISTRY SUBJECT TEST 2

You are about to take the second practice SAT Chemistry Subject Test.

After answering questions 1–23, which constitute Part A, you'll be directed to answer questions 101–116, which constitute Part B. Then, begin again at question 24. Questions 24–69 constitute Part C.

When you're ready to score yourself, refer to the scoring instructions and answer key on this page. Full explanations regarding the correct answers to all questions start on this page.

CHEMISTRY SUBJECT TEST

MATERIAL IN THE FOLLOWING TABLE MAY BE USEFUL IN ANSWERING THE QUESTIONS IN THIS EXAMINATION.

PERIODIC TABLE OF THE ELEMENTS

1 H 1.0079																	2 He 4.0026
3 Li 6.941	4 Be 9.012											5 B 10.811	6 C 12.011	7 N 14.007	8 O 16.00	9 F 19.00	10 Ne 20.179
11 Na 22.99	12 Mg 24.30											13 Al 26.98	14 Si 28.09	15 P 30.974	16 S 32.06	17 Cl 35.453	18 Ar 39.948
19 K 39.10	20 Ca 40.48	21 Sc 44.96	22 Ti 47.90	23 V 50.94	24 Cr 52.00	25 Mn 54.938	26 Fe 55.85	27 Co 58.93	28 Ni 58.69	29 Cu 63.55	30 Zn 65.39	31 Ga 69.72	32 Ge 72.59	33 As 74.92	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 91.22	41 Nb 92.91	42 Mo 95.94	43 Tc (98)	44 Ru 101.1	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 121.75	52 Te 127.60	53 I 126.91	54 Xe 131.29
55 Cs 132.91	56 Ba 137.33	57 *La 138.91	72 Hf 178.49	73 Ta 180.95	74 W 183.85	75 Re 186.21	76 Os 190.2	77 Ir 192.2	78 Pt 195.08	79 Au 196.97	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.98	84 Po (209)	85 At (210)	86 Rn (222)
87 Fr (223)	88 Ra 226.02	89 †Ac 227.03	104 Rf (261)	105 Db (262)	106 Bh (264)	107 Sg (266)	108 Mt (268)	109 Ds (271)	110 Rg (272)	111 Hs (277)	112 § (277)						

§ Not yet named

*Lanthanide Series	58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm (145)	62 Sm 150.4	63 Eu 151.97	64 Gd 157.25	65 Tb 158.93	66 Dy 162.50	67 Ho 164.93	68 Er 167.26	69 Tm 168.93	70 Yb 173.04	71 Lu 174.97
†Actinide Series	90 Th 232.04	91 Pa 231.04	92 U 238.03	93 Np 237.05	94 Pu (244)	95 Am (243)	96 Cm (247)	97 Bk (247)	98 Cf (251)	99 Es (252)	100 Fm (257)	101 Md (258)	102 No (259)	103 Lr (262)

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Note: For all questions involving solutions and/or chemical equations, assume that the system is in pure water unless otherwise stated.

Part A

Directions: Each set of lettered choices below refers to the numbered statements or questions immediately following it. Select the one lettered choice that best fits each statement or answers each question, and then fill in the corresponding oval on the answer sheet. A choice may be used once, more than once, or not at all in each set.

Questions 1–4 refer to the following.

(A) Molarity
(B) Molality
(C) Mole fraction
(D) Density
(E) Partial pressure

1. Is measured in units of atmospheres or millimeters of mercury

2. Is measured in units of moles/kilogram

3. Is a measure of mass per unit volume

4. Is the quantity used in the calculation of boiling point elevation

Questions 5–9 refer to the following.

(A) Hydrogen bonding
(B) Ionic bonding
(C) Network bonding
(D) London dispersion force
(E) Metallic bonding

5. Chiefly responsible for the relatively high boiling point of water

6. Is present in liquid oxygen

7. Is primarily responsible for the hardness of diamond

8. Allows copper to conduct electricity

9. Is present in solid KCl

Questions 10–13 refer to the following.

(A) Na^+
(B) Al
(C) F
(D) Ti
(E) Br^-

10. Has 7 valence electrons

11. Has the electron configuration $1s^2 2s^2 2p^6 3s^2 3p^1$

12. Has the same electron configuration as a neon atom

13. Has valence electrons in *d* orbitals

Questions 14–17 refer to the following.

(A) A 0.01-molar solution of HNO_3

(B) A 0.01-molar solution of $HC_2H_3O_2$

(C) A 0.01-molar solution of $Cu(NO_3)_2$

(D) A 0.01-molar solution of $NaNO_3$

(E) A 0.01-molar solution of NaOH

14. Will be colored blue

15. Will have a pH of 2

16. Will have the lowest freezing point

17. Will contain undissociated aqueous particles

Questions 18–20 refer to the following.

(A) Enthalpy change
(B) Entropy change
(C) Gibbs free energy change
(D) Activation energy
(E) Specific heat capacity

18. Is the amount of energy that must be added to raise the temperature of 1 gram of a of a substance 1°C

19. Its value indicates the spontaneity of a reaction

20. Its value indicates whether a reaction is endothermic or exothermic

Questions 21–23 refer to the following.

(A) Ionization energy
(B) Electronegativity
(C) Atomic radius
(D) Atomic number
(E) Mass number

21. Is the measure of the pull of the nucleus of an atom on the electrons of other atoms atoms bonded to it

22. Is the energy required to remove an electron from an atom

23. Is equal to the number of protons in an atom

PLEASE GO TO THE SPECIAL SECTION LABELED CHEMISTRY AT THE LOWER RIGHT-HAND CORNER OF THE ANSWER SHEET YOU ARE WORKING ON AND ANSWER QUESTIONS 101–116 ACCORDING TO THE FOLLOWING DIRECTIONS.

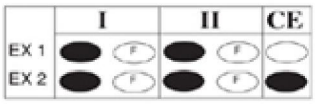
Part B

Directions: Each question below consists of two statements, I in the left-hand column and II in the right-hand column. For each question, determine whether statement I is true or false and whether statement II is true or false, and fill in the corresponding T or F ovals on your answer sheet. Fill in oval CE only if statement II is a correct explanation of statement I.

EXAMPLES:

	I		II
EX 1.	**H_2SO_4 is a strong acid**	**BECAUSE**	**H_2SO_4 contains sulfur.**
EX 2.	**An atom of oxygen is electrically neutral**	**BECAUSE**	**an oxygen atom contains an equal number of protons and electrons.**

SAMPLE ANSWERS



	I		II
101.	An ionic solid is a good conductor of electricity	BECAUSE	an ionic solid is composed of positive and negative ions joined together in a lattice structure held together by electrostatic forces.
102.	The bond in an O_2 molecule is nonpolar	BECAUSE	the oxygen atoms in an O_2 molecule share the bonding electrons equally.
103.	When a sample of water freezes, the process is exothermic	BECAUSE	ice is at a lower potential energy state than water.
104.	At 25°C, an aqueous solution with a pH of 5 will have a pOH of 9	BECAUSE	the pH of a buffered solution is not greatly affected by the addition of a relatively small amount of acid or base.
105.	When a chlorine atom gains an electron, it becomes a positively charged ion	BECAUSE	a neutral atom has equal numbers of protons and electrons.
106.	Lithium has a larger first ionization energy than oxygen	BECAUSE	oxygen atoms have larger atomic radii than lithium atoms.
107.	Potassium chloride dissolves readily in water	BECAUSE	water is a polar solvent.
108.	Ammonia is a Lewis base	BECAUSE	ammonia can donate an electron pair to a bond.
109.	Elemental fluorine is more reactive than elemental neon	BECAUSE	neon has a larger atomic weight than fluorine.
110.	The addition of a catalyst will decrease the ΔH for a reaction	BECAUSE	a catalyst provides an alternate reaction pathway with a lower activation energy.
111.	The oxygen atom in a water molecule has a –2 oxidation state	BECAUSE	water molecules exhibit hydrogen bonding.
112.	When a salt sample dissolves in water, S for the process is positive	BECAUSE	for a salt sample, aqueous ions have greater entropy than ions in a solid.
113.	When the temperature of a reaction at equilibrium is increased, the equilibrium will shift to favor the endothermic direction	BECAUSE	at equilibrium, all reactants have been converted into products.
114.	An atom of ^{12}C contains 12 protons	BECAUSE	the identity of an element is determined by the number of protons in the nuclei of its atoms.

115.	Water boils at a lower temperature at high altitude than at low altitude	BECAUSE	the vapor pressure of water is lower at higher altitude.
116.	Elemental sodium is a strong reducing agent	BECAUSE	an atom of elemental sodium gives up its valence electron readily.

RETURN TO THE SECTION OF YOUR ANSWER SHEET YOU STARTED FOR **CHEMISTRY** AND ANSWER QUESTIONS 24–69.

Part C

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case and then fill in the corresponding oval on the answer sheet.

24. What is the oxidation state of bromine in $HBrO_3$?

(A) –3
(B) –1
(C) +1
(D) +3
(E) +5

25. What is the percent by mass of silicon in a sample of silicon dioxide?

(A) 21%
(B) 33%
(C) 47%
(D) 54%
(E) 78%

26. How many electrons does a ^{37}Cl ion with a charge of –1 contain?

(A) 16
(B) 17
(C) 18
(D) 37
(E) 38

$$CH_4(g) + 2\ O_2(g) \rightarrow CO_2(g) + 2\ H_2O(g) + 800\ kJ$$

27. If 1 mole of $O_2(g)$ is consumed in the reaction given above, how much energy is produced?

(A) 200 kJ
(B) 400 kJ
(C) 800 kJ
(D) 1,200 kJ
(E) 1,600 kJ

28. Which of the following is NOT true of the element sodium?

(A) It takes the oxidation state +1.

(B) It reacts with water to form a basic solution.

(C) It forms metallic bonds in its solid uncombined form.

(D) It is found in nature as a diatomic gas.

(E) It reacts with a halogen to form an ionic salt.

29. What volume of a 0.200-molar solution of sodium hydroxide is required to neutralize neutralize 40 liters of a 0.300-molar hydrochloric acid solution?

(A) 10 liters

(B) 20 liters

(C) 40 liters

(D) 60 liters

(E) 120 liters

$$\cdots PH_3 + \ldots O_2 \rightarrow \ldots P_2O_5 + \ldots H_2O$$

30. When the equation above is balanced and the coefficients are reduced to the lowest lowest whole numbers, the coefficient for H_2O is

(A) 1

(B) 2

(C) 3

(D) 4

(E) 5

$$H_2SO_4(aq) + Ba(OH)_2(aq) \rightarrow$$

31. Which of the following are products of the reaction shown above?

I. $O_2(g)$

II. $H_2O(l)$

III. $BaSO_4(s)$

(A) I only

(B) III only

(C) I and II only

(D) I and III only

(E) II and III only

$$2Mg(s) + O_2(g) \rightarrow 2MgO(s)$$

32. If 48.6 grams of magnesium are placed in a container with 64 grams of oxygen gas gas and the reaction above proceeds to completion, what is the mass of $MgO(s)$ produced?

(A) 15.4 grams

(B) 32.0 grams
(C) 80.6 grams
(D) 96.3 grams
(E) 112 grams

33. An ideal gas in a closed inflexible container has a pressure of 6 atmospheres and a and a temperature of 27°C. What will be the new pressure of the gas if the temperature is decreased to –73°C?

(A) 2 atm
(B) 3 atm
(C) 4 atm
(D) 8 atm
(E) 9 atm

34. Equal molar quantities of hydrogen gas and oxygen gas are present in a closed container at a constant temperature. Which of the following quantities will be the the same for the two gases?

I. Partial pressure
II. Average kinetic energy
III. Average molecular velocity

(A) I only
(B) I and II only
(C) I and III only
(D) II and III only
(E) I, II, and III

35. Which of the following is a nonpolar molecule?

(A) CO_2
(B) H_2O
(C) NH_3
(D) NO
(E) HI

36. What is the molar concentration of a 500-milliliter solution that contains 20 grams of grams of $CaBr_2$ (formula weight = 200)?

(A) 0.1 molar
(B) 0.2 molar
(C) 0.5 molar
(D) 1 molar

(E) 5 molar

37. The structure of $BeCl_2$ can best be described as

(A) linear
(B) bent
(C) trigonal
(D) tetrahedral
(E) square

$$2\ NO(g) + 2\ H_2(g) \rightarrow N_2(g) + 2\ H_2O(g)$$

38. Which of the following statements is true regarding the reaction given above?

(A) If 1 mole of H_2 is consumed, 0.5 mole of N_2 is produced.
(B) If 1 mole of H_2 is consumed, 0.5 mole of H_2O is produced.
(C) If 0.5 mole of H_2 is consumed, 1 mole of N_2 is produced.
(D) If 0.5 mole of H_2 is consumed, 1 mole of NO is consumed.
(E) If 0.5 mole of H_2 is consumed, 1 mole of H_2O is produced.

Questions 39–40 pertain to the reaction represented by the following equation.

$$\cdots Cu(s) + \ldots NO_3^-(aq) + \ldots H^+(aq) \rightarrow \ldots Cu^{2+}(aq) + \ldots NO_2(g) + \ldots H_2O(l)$$

39. When the equation above is balanced with lowest whole number coefficients, the coefficient for $H^+(aq)$ will be

(A) 1
(B) 2
(C) 3
(D) 4
(E) 5

40. Which of the following takes place during the reaction above?

(A) $Cu(s)$ is oxidized.
(B) $Cu(s)$ is reduced.
(C) $H^+(aq)$ is oxidized.
(D) $H^+(aq)$ is reduced.
(E) $NO_3^-(aq)$ is oxidized.

41. Which of the following could be the molecular formula for a molecule with an empirical formula of CH_2?

(A) CH
(B) CH_4
(C) C_2H_2
(D) C_2H_6
(E) C_3H_6

42. When CO_2 is bubbled through distilled water at 25°C, which of the following is most most likely to occur?

(A) Solid carbon will precipitate.
(B) An electrical current will be produced in an oxidation-reduction reaction.
(C) The pH of the solution will be reduced.
(D) The water will boil.
(E) Methane (CH_4) gas will be formed.

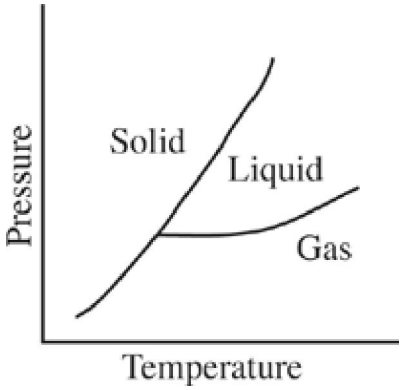
43. In which of the following processes is entropy increasing?

(A) $N_2(g) + 3\ Cl_2(g) \rightarrow 2\ NCl_3(g)$
(B) $H_2O(g) \rightarrow H_2O(l)$

(C) $2\ H_2O(l) \rightarrow 2\ H_2(g) + O_2(g)$

(D) $CO(g) + 2\ H_2(g) \rightarrow CH_3OH(l)$

(E) $2\ NO_2(g) \rightarrow N_2O_4(g)$



44. Based on the phase diagram above, which series of phase changes could take place as place as pressure is decreased at a constant temperature?

(A) Solid to liquid to gas

(B) Solid to gas to liquid

(C) Gas to liquid to solid

(D) Gas to solid to liquid

(E) Liquid to gas to solid

45. Which of the following forms of radioactive decay has (have) no electrical charge? charge?

I. Alpha decay

II. Beta decay

III. Gamma decay

(A) II only

(B) III only

(C) I and II only

(D) I and III only

(E) II and III only

46. Based on the solubility products given below, which of the following salts is the most most soluble?

(A) $BaCO_3$ $K_{sp} = 5.1 \times 10^{-9}$

(B) $PbCrO_4$ $K_{sp} = 2.8 \times 10^{-13}$

(C) $AgCl$ $K_{sp} = 1.8 \times 10^{-10}$

(D) $CaSO_4$ $K_{sp} = 9.1 \times 10^{-6}$

(E) ZnC_2O_4 $K_{sp} = 2.7 \times 10^{-8}$

$$HCN(aq) \rightarrow H^+(aq) + CN^-(aq)$$

47. Hydrocyanic acid dissociates according to the reaction given above. Which of the following expressions is equal to the acid dissociation constant for HCN?

(A) $[H^+][CN^-]$

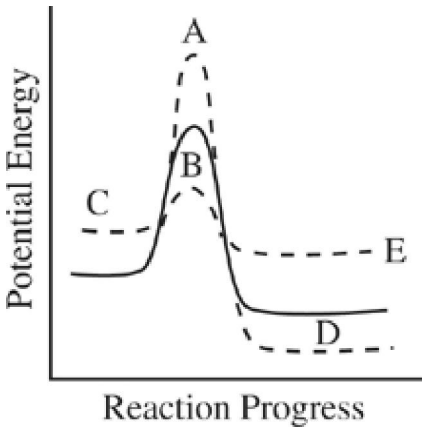
(B) $[H^+][CN^-][HCN]$

(C) $\frac{[HCN]}{[H^+][CN^-]}$

(D) $\frac{[H^+][CN^-]}{[HCN]}$

(E) $\frac{1}{[H^+][CN^-][HCN]}$

48. The reaction progress diagram of an uncatalyzed reaction is shown by the solid line. line. Which dotted line presents the same reaction in the presence of a catalyst? catalyst?



49. In a hydrogen atom, when an electron jumps from an excited energy state to a more more stable energy state,

(A) electromagnetic radiation is emitted by the atom

(B) electromagnetic radiation is absorbed by the atom

(C) the atom becomes a positively charged ion

(D) the atom becomes a negatively charged ion

(E) the atom undergoes nuclear decay

Questions 50–52 pertain to the following situation.

A closed 5-liter vessel contains a sample of neon gas. The temperature inside the container is container is 25°C, and the pressure is 1.5 atmospheres. (The gas constant, *R*, is equal to 0.08 0.08 L•atm/mol•K.)

50. Which of the following expressions is equal to the molar quantity of gas in the sample?

(A) $\frac{(1.5)(5.0)}{(0.08)(25)}$ moles

(B) $\frac{(0.08)(25)}{(1.5)(5.0)}$ moles

(C) $\frac{(1.5)(25)}{(0.08)(5.0)}$ moles

(D) $\frac{(0.08)(298)}{(1.5)(5.0)}$ moles

(E) $\frac{(1.5)(5.0)}{(0.08)(298)}$ moles

51. If the neon gas in the vessel is replaced with an equal molar quantity of helium gas, gas, which of the following properties of the gas in the container will be changed? changed?

I. Pressure

II. Temperature

III. Density

(A) I only

(B) II only

(C) III only

(D) I and II only

(E) II and III only

52. The volume of the vessel was gradually changed while temperature was held constant constant until the pressure was measured at 1.6 atmospheres. Which of the following following expressions is equal to the new volume?

(A) $5.0 \times \frac{1.5}{1.6}$ liters

(B) $5.0 \times \frac{1.6}{1.5}$ liters

(C) $25 \times \frac{1.5}{1.6}$ liters

(D) $0.08 \times \frac{1.6}{1.5}$ liters

(E) $0.08 \times \frac{1.5}{1.6}$ liters

53. An oxidation-reduction reaction takes place in a chemical cell, and the flow of electrons is used to provide energy for a lightbulb. Which of the following statements is true of the reaction?

(A) The reaction is nonspontaneous and has a positive voltage.
(B) The reaction is nonspontaneous and has a negative voltage.
(C) The reaction is at equilibrium and has a voltage of zero.
(D) The reaction is spontaneous and has a positive voltage.
(E) The reaction is spontaneous and has a negative voltage.

54. A solution containing which of the following pairs of species could be a buffer?

(A) H^+ and Cl^-
(B) H_2CO_3 and HCO_3^-
(C) Na^+ and NO_3^-
(D) Na^+ and OH^-
(E) HNO_3 and NO_3^-

55. Which of the following species is the conjugate acid of ammonia (NH_3)?

(A) N_2
(B) H_2
(C) NH_2^-
(D) NH_2^-
(E) NH_4^+

56. A solution of H_2SO_3 is found to have a hydrogen ion concentration of 1×10^{-3} molar molar at 25°C. What is the hydroxide ion concentration in the solution?

(A) 1×10^{-13} molar
(B) 1×10^{-11} molar
(C) 1×10^{-7} molar
(D) 1×10^{-4} molar
(E) 1×10^{-3} molar

57. Which of the following expressions is equal to the number of iron (Fe) atoms present present in a pure sample of solid iron with a mass of 10 grams? (The atomic mass of mass of iron is 55.9.)

(A) $(10.0)(55.9)(6.02 \times 10^{23})$ atoms
(B) $\dfrac{(6.02 \times 10^{23})}{(10.0)(55.9)}$ atoms
(C) $\dfrac{(10.0)(6.02 \times 10^{23})}{(55.9)}$ atoms

(D) $\frac{(55.9)}{(10.0)(6.02 \times 10^{23})}$ atoms

(E) $\frac{(10.0)}{(55.9)(6.02 \times 10^{23})}$ atoms

58. A radioactive material is undergoing nuclear decay. After 40 minutes, 25 percent of of the sample remains. What is the half-life of the sample?

(A) 10 minutes

(B) 20 minutes

(C) 40 minutes

(D) 80 minutes

(E) 160 minutes

Element	First Ionization Energy
Lithium	520
Sodium	496
Rubidium	403
Cesium	376

59. Based on the table above, which of the following is most likely to be the first ionization energy for potassium?

(A) 536 kJ/mol

(B) 504 kJ/mol

(C) 419 kJ/mol

(D) 391 kJ/mol

(E) 358 kJ/mol

Questions 60–62 pertain to the reaction represented by the following equation.

$$2\ NOCl(g) \rightleftharpoons 2\ NO(g) + Cl_2(g)$$

60. Which of the following expressions gives the equilibrium constant for the reaction reaction above?

(A) $\frac{[NOCl]}{[NO][Cl_2]}$

(B) $\frac{[NO][Cl_2]}{[NOCl]}$

(C) $\frac{[NOCl]^2}{[NO]^2[Cl_2]}$

(D) $\frac{[NO]^2[Cl_2]}{[NOCl]^2}$

(E) $\frac{[NOCl]^2}{[NO]^2[Cl_2]^2}$

61. Which of the following changes to the equilibrium above would serve to decrease the the concentration of Cl_2?

I. The addition of $NOCl(g)$ to the reaction vessel

II. The addition of $NO(g)$ to the reaction vessel

III. A decrease in the volume of the reaction vessel

(A) I only

(B) II only

(C) I and II only

(D) I and III only

(E) II and III only

62. Which of the following is true of the reaction above as it proceeds in the forward forward direction?

(A) $NO(g)$ is produced at the same rate that $NOCl(g)$ is consumed.

(B) $NO(g)$ is produced at half the rate that $NOCl(g)$ is consumed.

(C) $NO(g)$ is produced at twice the rate that $NOCl(g)$ is consumed.

(D) $Cl_2(g)$ is produced at the same rate that $NOCl(g)$ is consumed.

(E) $Cl_2(g)$ is produced at twice the rate that $NOCl(g)$ is consumed.

63. Which of the following is an organic molecule?

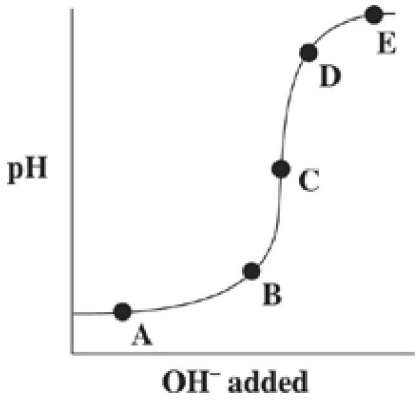
(A) SiO_2

(B) NH_3

(C) H_2O

(D) CH_4

(E) BeF_2



64. The graph above represents the titration of a strong acid with a strong base. Which of Which of the points shown on the graph indicates the equivalence point in the titration?

(A) A

(B) B

(C) C

(D) D

(E) E

65. Which of the following statements about fluorine is NOT true?

(A) It is the most electronegative element.

(B) It contains 19 protons in its nucleus.

(C) Its compounds can engage in hydrogen bonding.

(D) It takes the oxidation state –1.

(E) It is found in nature as a diatomic gas.

66. The reactivity and chemical behavior of an atom is governed by many factors. The The most important factor is

(A) the number of protons in the atom's nucleus

(B) the number of neutrons in the atom's nucleus

(C) the number of protons and neutrons in the atom's nucleus

(D) the ratio of protons to neutrons in the atom's nucleus

(E) the number of electrons in the atom's valence shell

67. A beaker contains a saturated solution of copper(I) chloride, a slightly soluble salt salt with a solubility product of 1.2×10^{-6}. The addition of which of the salts listed listed below to the solution would cause the precipitation of copper(I) chloride?

(A) Sodium chloride

(B) Potassium bromide

(C) Silver(I) nitrate

(D) Lead(II) acetate

(E) Magnesium iodide

68. Bromothymol blue is an acid/base indicator with a pK_a of 6.8. Therefore, at approximately what pH will bromothymol blue undergo a color change during an acid/base titration?

(A) 1

(B) 3

(C) 5

(D) 7

(E) 13

69. Which of the following is necessarily true of a nonionic substance with a high boiling boiling point?

(A) It has a large vapor pressure.

(B) It has strong intermolecular attractive forces.

(C) It has a low freezing point.

(D) It has a low heat of vaporization.

(E) It will be present in gas phase at very low temperatures.

STOP

If you finish before time is called, you may check your work on this section only. Do not turn to any other section in the test.

HOW TO SCORE THE PRINCETON REVIEW PRACTICE SAT CHEMISTRY SUBJECT TEST

When you take the real exam, the proctors will collect your test booklet and bubble sheet and send your answer sheet to New Jersey, where a computer looks at the pattern of filled-in ovals on your answer sheet and gives you a score. We couldn't include even a small computer with this book, so we are providing this more primitive way of scoring your exam.

Determining Your Score

STEP 1

Using the answer key on the next page, determine how many questions you got right and how many you got wrong on the test. Remember: Questions that you do not answer don't count as either right or wrong answers.

STEP 2

List the number of right answers here.

(A) _____

STEP 3

List the number of wrong answers here. Now divide that number by 4. (Use a calculator if you're feeling particularly lazy.)

(B) _____ ÷ 4 = (C) _____

STEP 4

Subtract the number of wrong answers divided by 4 from the number of correct answers. Round this score to the nearest whole number. This is your raw score.

A) _____ – (C) _____ = _____

STEP 5

To determine your real score, take the number from Step 4 above, and look it up in the left column of the Score Conversion Table on this page; the corresponding score on the right is your score on the exam.

ANSWERS TO THE PRINCETON REVIEW PRACTICE SAT CHEMISTRY SUBJECT TEST 2

Question Number	Correct Answer	Right	Wrong
1.	E	____	____
2.	B	____	____
3.	D	____	____
4.	B	____	____
5.	A	____	____
6.	D	____	____
7.	C	____	____
8.	E	____	____
9.	B	____	____
10.	C	____	____
11.	B	____	____
12.	A	____	____
13.	D	____	____
14.	C	____	____
15.	A	____	____
16.	C	____	____
17.	B	____	____
18.	E	____	____
19.	C	____	____
20.	A	____	____
21.	B	____	____
22.	A	____	____
23.	D	____	____
24.	E	____	____
25.	C	____	____
26.	C	____	____
27.	B	____	____
28.	D	____	____
29.	D	____	____
30.	C	____	____
31.	E	____	____
32.	C	____	____
33.	C	____	____
34.	B	____	____
35.	A	____	____
36.	B	____	____
37.	A	____	____
38.	A	____	____
39.	D	____	____
40.	A	____	____
41.	E	____	____
42.	C	____	____
43.	C	____	____
44.	A	____	____
45.	B	____	____
46.	D	____	____
47.	D	____	____
48.	B	____	____
49.	A	____	____
50.	E	____	____
51.	C	____	____
52.	A	____	____
53.	D	____	____
54.	B	____	____
55.	E	____	____
56.	B	____	____
57.	C	____	____
58.	B	____	____
59.	C	____	____
60.	D	____	____
61.	E	____	____
62.	A	____	____
63.	D	____	____
64.	C	____	____
65.	B	____	____
66.	E	____	____
67.	A	____	____
68.	D	____	____
69.	B	____	____

101.	F, T
102.	T, T, CE
103.	T, T, CE
104.	T, T
105.	F, T
106.	F, F
107.	T, T, CE
108.	T, T, CE
109.	T, T
110.	F, T
111.	T, T
112.	T, T, CE
113.	T, F
114.	F, T
115.	T, F
116.	T, T, CE

THE PRINCETON REVIEW PRACTICE SAT CHEMISTRY SUBJECT TEST SCORE CONVERSION TABLE

Raw Score	Scaled Score
85	800
84	800
83	800
82	800
81	800
80	800
79	800
78	790
77	780
76	780
75	780
74	780
73	780
72	770
71	770
70	750
69	750
68	740
67	740
66	740
65	730
64	730
63	710
62	710
61	710
60	700
59	700
58	690
57	690
56	680
55	680
54	680
53	670
52	670
51	660
50	650
49	650
48	630
47	630
46	630

Raw Score	Scaled Score
45	620
44	620
43	610
42	610
41	600
40	590
39	590
38	580
37	580
36	570
35	560
34	560
33	550
32	550
31	540
30	530
29	530
28	520
27	520
26	520
25	510
24	510
23	500
22	500
21	490
20	480
19	480
18	470
17	470
16	460
15	450
14	450
13	440
12	440
11	430
10	420
9	420
8	410
7	410
6	400

Raw Score	Scaled Score
5	390
4	390
3	380
2	380
1	370
0	370
–1	370
–2	360
–3	360
–4	350
–5	340
–6	340
–7	330
–8	330
–9	320
–10	310
–11	310
–12	300
–13	300
–14	290
–15	280
–16	280
–17	270
–18	270
–19	260
–20	250
–21	250