Section 3: Math Test – No Calculator

QUESTION 13

Choice B is correct. Since $24x^2 + 25x - 47$ divided by $ax - 2$ is equal to $-8x - 3$ with remainder -53, it is true that $(-8x - 3)(ax - 2) - 53 = 24x^2 + 25x - 47$. (This can be seen by multiplying each side of the given equation by $ax - 2$). This can be rewritten as $-8ax^2 + 16x - 3ax + 6 - 53 = 24x^2 + 25x - 47$. Since the coefficients of the x^2-term have to be equal on both sides of the equation, $-8a = 24$, or $a = -3$.

Choices A, C, and D are incorrect and may be the result of either a conceptual misunderstanding or a computational error when trying to solve for the value of a.

QUESTION 14

Choice A is correct. Dividing each side of the given equation by 3 gives the equivalent equation $x^2 + 4x + 2 = 0$. Then using the quadratic formula, $\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ with $a = 1$, $b = 4$, and $c = 2$, gives the solutions $x = -2 \pm \sqrt{2}$.

Choices B, C, and D are incorrect and may be the result of errors when applying the quadratic formula.

QUESTION 15

Choice D is correct. If C is graphed against F, the slope of the line is equal to $\frac{5}{9}$ degrees Celsius/degrees Fahrenheit, which means that for an increase of 1 degree Fahrenheit, the increase is $\frac{5}{9}$ of 1 degree Celsius. Thus, statement I is true. This is the equivalent to saying that an increase of 1 degree Celsius is equal to an increase of $\frac{9}{5}$ degrees Fahrenheit.

Since $\frac{9}{5} = 1.8$, statement II is true. On the other hand, statement III is not true, since a temperature increase of $\frac{9}{5}$ degrees Fahrenheit, not $\frac{5}{9}$ degree Fahrenheit, is equal to a temperature increase of 1 degree Celsius.

Choices A, B, and C are incorrect because each of these choices omits a true statement or includes a false statement.

Section 4: Math Test – Calculator

QUESTION 13

Choice D is correct. Starting with the original equation, $h = -16t^2 + vt + k$, in order to get v in terms of the other variables, $-16t^2$ and k need to be subtracted from each side. This yields $vt = h + 16t^2 - k$, which when

divided by t will give v in terms of the other variables. However, the equation $v = \frac{h + 16t^2 - k}{t}$ is not one of the options, so the right side needs to be further simplified. Another way to write the previous equation is $v = \frac{h - k}{t} + \frac{16t^2}{t}$, which can be simplified to $v = \frac{h - k}{t} + 16t$.

Choices A, B, and C are incorrect and may be the result of arithmetic errors when rewriting the original equation to express v in terms of h, t, and k.

QUESTION 14

Choice A is correct. The hotel charges \$0.20 per minute to use the meeting-room phone. This per-minute rate can be converted to the hourly rate using the conversion 1 hour = 60 minutes, as shown below.

$$\frac{\$0.20}{\text{minute}} \times \frac{60 \text{ minutes}}{1 \text{ hour}} = \frac{\$(0.20 \times 60)}{\text{hour}}$$

Thus, the hotel charges \$(0.20 × 60) per hour to use the meeting-room phone. Therefore, the cost c, in dollars, for h hours of use is $c = (0.20 \times 60)h$, which is equivalent to $c = 0.20(60h)$.

Choice B is incorrect because in this expression the per-minute rate is multiplied by h, the number of hours of phone use. Furthermore, the equation indicates that there is a flat fee of \$60 in addition to the per-minute or per-hour rate. This is not the case. Choice C is incorrect because the expression indicates that the hotel charges $\$\left(\frac{60}{0.20}\right)$ per hour for use of the meeting-room phone, not \$0.20(60) per hour. Choice D is incorrect because the expression indicates that the hourly rate is $\frac{1}{60}$ times the per-minute rate, not 60 times the per-minute rate.

QUESTION 15

Choice A is the correct answer. Experimental research is a method used to study a small group of people and generalize the results to a larger population. However, in order to make a generalization involving cause and effect:

- The population must be well defined.
- The participants must be selected at random.
- The participants must be randomly assigned to treatment groups.

When these conditions are met, the results of the study can be generalized to the population with a conclusion about cause and effect. In this study, all conditions are met and the population from which the participants were selected are people with poor eyesight. Therefore, a general conclusion can be drawn about the effect of Treatment X on the population of people with poor eyesight.

Choice B is incorrect. The study did not include all available treatments, so no conclusion can be made about the relative effectiveness of all available treatments. Choice C is incorrect. The participants were selected at random from a large population of people with poor eyesight. Therefore, the results can be generalized only to that population and not to anyone in general. Also, the conclusion is too strong: an experimental study might show that people are likely to be helped by a treatment, but it cannot show that anyone who takes the treatment will be helped. Choice D is incorrect. This conclusion is too strong. The study shows that Treatment X is likely to improve the eyesight of people with poor eyesight, but it cannot show that the treatment definitely will cause improvement in eyesight for every person. Furthermore, since the people undergoing the treatment in the study were selected from people with poor eyesight, the results can be generalized only to this population, not to all people.

QUESTION 16

Choice B is correct. The graphs of $y = f(x)$ and $y = g(x)$ are given. In order for $f(x) + g(x)$ to be 0, there must be one or more values of x for which the y-coordinates of the graphs are opposites. Looking at the graphs, one can see that this occurs at $x = -2$: the point $(-2, -2)$ lies on the graph of f, and the point $(-2, 2)$ lies on the graph of g. Thus, at $x = -2$, the value of $f(x) + g(x$ is $-2 + 2 = 0$.

Choices A, C, and D are incorrect because none of these x-values satisfies the given equation, $f(x) + g(x) = 0$.

QUESTION 21

Choice C is correct. Linear growth is characterized by an increase of a quantity at a constant rate. Exponential growth is characterized by an increase of a quantity at a relative rate; that is, an increase by the same factor over equal increments of time. In choice C, the value of the account increases by 1% each year; that is, the value is multiplied by the same factor, 1.01, each year. Therefore, the value described in choice C grows exponentially.

Choices A and B are incorrect because the rate depends only on the initial value, and thus the value increases by the same amount each year. Both options A and B describe linear growth. Choice D is incorrect; it is is also a description of linear growth, as the increase is constant each year.

QUESTION 22

Choice B is correct. One of the three numbers is x; let the other two numbers be y and z. Since the sum of three numbers is 855, the equation $x + y + z = 855$ is true. The statement that x is 50% more than the sum of the other two numbers can be represented as $x = 1.5(y + z)$, or $x = \frac{3}{2}(y + z)$. Multiplying both sides of the equation $x = \frac{3}{2}(y + z)$ by $\frac{2}{3}$ gives $\frac{2}{3}x = y + z$. Substituting $\frac{2}{3}x$ in $x + y + z = 855$ gives $x + \frac{2}{3}x = 855$, or $\frac{5x}{3} = 855$. Therefore, x equals $\frac{3}{5} \times 855 = 513$.

Choices A, C, and D are incorrect and may be the result of computational errors.

QUESTION 23

Choice C is correct. Since the angles are acute and $\sin(a°) = \cos(b°)$, it follows from the complementary angle property of sines and cosines that $a + b = 90$. Substituting $4k - 22$ for a and $6k - 13$ for b gives $(4k - 22) + (6k - 13) = 90$, which simplifies to $10k - 35 = 90$. Therefore, $10k = 125$, and $k = 12.5$.

Choice A is incorrect and may be the result of mistakenly assuming that $a = b$ and making a sign error. Choices B and D are incorrect because they result in values for a and b such that $\sin(a°) \neq \cos(b°)$.

QUESTION 24

Choice D is correct. Let c be the number of students in Mr. Kohl's class. The conditions described in the question can be represented by the equations $n = 3c + 5$ and $n + 21 = 4c$. Substituting $3c + 5$ for n in the second equation gives $3c + 5 + 21 = 4c$, which can be solved to find $c = 26$.

Choices A, B, and C are incorrect because the values given for the number of students in the class cannot fulfill both conditions given in the question. For example, if there were 16 students in the class, then the first condition would imply that there are $3(16) + 5 = 53$ milliliters

of solution in the beaker, but the second condition would imply that there are 4(16) − 21 = 43 milliliters of solution in the beaker. This contradiction shows that there cannot be 16 students in the class.

QUESTION 25

Choice D is correct. The volume of the grain silo can be found by adding the volumes of all the solids of which it is composed. The silo is made up of a cylinder with height 10 feet (ft) and base radius 5 ft and two cones, each having height 5 ft and base radius 5 ft. The formulas $V_{\text{cylinder}} = \pi r^2 h$ and $V_{\text{cone}} = \frac{1}{3}\pi r^2 h$ can be used to determine the total volume of the silo. Since the two cones have identical dimensions, the total volume, in cubic feet, of the silo is given by $V_{\text{silo}} = \pi(5)^2(10) + (2)\left(\frac{1}{3}\right)\pi(5)^2(5) = \left(\frac{4}{3}\right)(250)\pi$, which is approximately equal to 1,047.2 cubic feet.

Choice A is incorrect because this is the volume of only the two cones. Choice B is incorrect because this is the volume of only the cylinder. Choice C is incorrect because this is the volume of only one of the cones plus the cylinder.

QUESTION 26

Choice C is correct. The line passes through the origin, (2, k), and (k, 32). Any two of these points can be used to find the slope of the line. Since the line passes through (0, 0) and (2, k), the slope of the line is equal to $\frac{k-0}{2-0} = \frac{k}{2}$. Similarly, since the line passes through (0, 0) and (k, 32), the slope of the line is equal to $\frac{32-0}{k-0} = \frac{32}{k}$. Since each expression gives the slope of the same line, it must be true that $\frac{k}{2} = \frac{32}{k}$. Multiplying each side of $\frac{k}{2} = \frac{32}{k}$ by $2k$ gives $k^2 = 64$, from which it follows that $k = 8$ or $k = -8$. Therefore, of the given choices, only 8 could be the value of k.

Choices A, B, and D are incorrect and may be the result of computational errors.

QUESTION 27

Choice C is correct. Let ℓ and w be the length and width, respectively, of the original rectangle. The area of the original rectangle is $A = \ell w$. The rectangle is altered by increasing its length by 10 percent and decreasing its width by p percent; thus, the length of the altered rectangle is 1.1ℓ, and the width of the altered rectangle is $\left(1 - \frac{p}{100}\right)w$. The alterations decrease the area by 12 percent, so the area of the altered rectangle is $(1 - 0.12)A = 0.88A$. The area of the altered rectangle is the product of its length and width, so $0.88A = (1.1\ell)\left(1 - \frac{p}{100}\right)w$. Since $A = \ell w$, this last equation can

be rewritten as $0.88A = (1.1)\left(1 - \frac{p}{100}\right)\ell w = (1.1)\left(1 - \frac{p}{100}\right)A$, from which it follows that $0.88 = (1.1)\left(1 - \frac{p}{100}\right)$, or $0.8 = \left(1 - \frac{p}{100}\right)$. Therefore, $\frac{p}{100} = 0.2$, and so the value of p is 20.

Choice A is incorrect and may be the result of confusing the 12 percent decrease in area with the percent decrease in width. Choice B is incorrect because decreasing the width by 15 percent results in a 6.5 percent decrease in area, not a 12 percent decrease. Choice D is incorrect and may be the result of adding the percents given in the question (10 + 12).

QUESTION 28

Choice D is correct. For the present population to decrease by 10 percent, it must be multiplied by the factor 0.9. Since the engineer estimates that the population will decrease by 10 percent every 20 years, the present population, 50,000, must be multiplied by $(0.9)^n$, where n is the number of 20-year periods that will have elapsed t years from now. After t years, the number of 20-year periods that have elapsed is $\frac{t}{20}$. Therefore, $50{,}000(0.9)^{\frac{t}{20}}$ represents the engineer's estimate of the population of the city t years from now.

Choices A, B, and C are incorrect because each of these choices either confuses the percent decrease with the multiplicative factor that represents the percent decrease or mistakenly multiplies t by 20 to find the number of 20-year periods that will have elapsed in t years.

QUESTION 29

Choice A is correct. Let x be the number of left-handed female students and let y be the number of left-handed male students. Then the number of right-handed female students will be $5x$ and the number of right-handed male students will be $9y$. Since the total number of left-handed students is 18 and the total number of right-handed students is 122, the system of equations below must be satisfied.

$$\begin{cases} x + y = 18 \\ 5x + 9y = 122 \end{cases}$$

Solving this system gives $x = 10$ and $y = 8$. Thus, 50 of the 122 right-handed students are female. Therefore, the probability that a right-handed student selected at random is female is $\frac{50}{122}$, which to the nearest thousandth is 0.410.

Choices B, C, and D are incorrect and may be the result of incorrectly calculating the missing values in the table.

QUESTION 30

Choice A is correct. Subtracting the sides of $3y + c = 5y - 7$ from the corresponding sides of $3x + b = 5x - 7$ gives $(3x - 3y) + (b - c) = (5x - 5y + (-7 - (-7))$. Since $b = c - \frac{1}{2}$, or $b - c = -\frac{1}{2}$, it follows that $(3x - 3y) + \left(-\frac{1}{2}\right) = (5x - 5y)$. Solving this equation for x in terms of y gives $x = y - \frac{1}{4}$. Therefore, x is y minus $\frac{1}{4}$.

Choices B, C, and D are incorrect and may be the result of making a computational error when solving the equations for x in terms of y.

QUESTION 31

The correct answer is either 4 or 5. Because each student ticket costs \$2 and each adult ticket costs \$3, the total amount, in dollars, that Chris spends on x student tickets and 1 adult ticket is $2(x) + 3(1)$. Because Chris spends at least \$11 but no more than \$14 on the tickets, one can write the compound inequality $2x + 3 \geq 11$ and $2x + 3 \leq 14$. Subtracting 3 from each side of both inequalities and then dividing each side of both inequalities by 2 yields $x \geq 4$ and $x \leq 5.5$. Thus, the value of x must be an integer that is both greater than or equal to 4 and less than or equal to 5.5. Therefore, $x = 4$ or $x = 5$. Either 4 or 5 may be gridded as the correct answer.

QUESTION 32

The correct answer is 58.6. The mean of a data set is determined by calculating the sum of the values and dividing by the number of values in the data set. The sum of the ages, in years, in the data set is 703, and the number of values in the data set is 12. Thus, the mean of the ages, in years, of the first 12 United States presidents at the beginning of their terms is $\frac{703}{12}$. The question asks for an answer rounded to the nearest tenth, so the decimal equivalent, rounded to the nearest tenth, is the correct answer. This rounded decimal equivalent is 58.6.

QUESTION 33

The correct answer is 9. To rewrite the difference $(-3x^2 + 5x - 2) - 2(x^2 - 2x - 1)$ in the form $ax^2 + bx + c$, the expression can be simplified by using the distributive property and combining like terms as follows:

$$-3x^2 + 5x - 2) - (2x^2 - 4x - 2)$$

$$-3x^2 - 2x^2) + (5x - (-4x + (-2 - (-2))$$

$$-5x^2 + 9x + 0$$

The coefficient of x is the value of b, which is 9.

Alternatively, since b is the coefficient of x in the difference $-3x^2 + 5x - 2) - 2(x^2 - 2x - 1)$, one need only compute the x-term in the difference. The x-term is $5x - 2(-2x) = 5x + 4x = 9x$, so the value of b is 9.

QUESTION 34

The correct answer is $\frac{5}{8}$ or .625. A complete rotation around a point is 360° or 2π radians. Since the central angle AOB has measure $\frac{5\pi}{4}$ radians, it represents $\frac{\frac{5\pi}{4}}{2\pi} = \frac{5}{8}$ of a complete rotation around point O. Therefore, the sector formed by central angle AOB has area equal to $\frac{5}{8}$ the area of the entire circle. Either the fraction 5/8 or its decimal equivalent, .625, may be gridded as the correct answer.

QUESTION 35

The correct answer is 50. The mean of a data set is the sum of the values in the data set divided by the number of values in the data set. The mean of 75 is obtained by finding the sum of the first 10 ratings and dividing by 10. Thus, the sum of the first 10 ratings was 750. In order for the mean of the first 20 ratings to be at least 85, the sum of the first 20 ratings must be at least (85)(20) = 1700. Therefore, the sum of the next 10 ratings must be at least 1700 − 750 = 950. The maximum rating is 100, so the maximum possible value of the sum of the 12th through 20th ratings is 9 × 100 = 900. Therefore, for the store to be able to have an average of at least 85 for the first 20 ratings, the least possible value for the 11th rating is 950 − 900 = 50.

QUESTION 36

The correct answer is 750. The inequalities $y \leq -15x + 3000$ and $y \leq 5x$ can be graphed in the xy-plane. They are represented by the lower half-planes with the boundary lines $y = -15x + 3000$ and $y = 5x$, respectively. The solution set of the system of inequalities will be the intersection of these half-planes, including the boundary lines, and the solution (a, b) with the greatest possible value of b will be the point of intersection of the boundary lines. The intersection of boundary lines of these inequalities can be found by substituting $5x$ for y in the equation for the first line: $5x = -15x + 3000$, which has solution $x = 150$. Thus, the x-coordinate of the point of intersection is 150. Therefore, the y-coordinate of the point of intersection of the boundary lines is $5(150) = -15(150) + 3000 = 750$. This is the maximum possible value of b for a point (a, b) that is in the solution set of the system of inequalities.

QUESTION 37

The correct answer is 7. The average number of shoppers, N, in the checkout line at any time is $N = rt$, where r is the number of shoppers entering the checkout line per minute and T is the average number of minutes each shopper spends in the checkout line. Since 84 shoppers per hour make a purchase, 84 shoppers per hour enter the checkout line. This needs to be converted to the number of

shoppers per minute. Since there are 60 minutes in one hour, the rate is $\frac{84 \text{ shoppers}}{60 \text{ minutes}} = 1.4$ shoppers per minute. Using the given formula with $r = 1.4$ and $t = 5$ yields $N = rt = (1.4)(5) = 7$. Therefore, the average number of shoppers, N, in the checkout line at any time during business hours is 7.

QUESTION 38

The correct answer is 60. The estimated average number of shoppers in the original store at any time is 45. In the new store, the manager estimates that an average of 90 shoppers per hour enter the store, which is equivalent to 1.5 shoppers per minute. The manager also estimates that each shopper stays in the store for an average of 12 minutes. Thus, by Little's law, there are, on average, $N = rt = (1.5)(12) = 18$ shoppers in the new store at any time. This is $\frac{45 - 18}{45} \times 100 = 60$ percent less than the average number of shoppers in the original store at any time.

SAT Math Problems Practice Test #3

No Calculator Section

- Q 13.)
  - Step 1: Multiply both sides of equation by (ax-2) to simply the equation.
    - $24x^2 + 25x - 47 = (-8x - 3)(ax - 2) - 53$
    - $\mathbf{24x^2} + 25x - 47 = \mathbf{-8ax^2} + 16x - 3ax - 47$
  - Step 2: Focus on the terms with x^2 and solve for a
    - $24x^2 = -8ax^2$
    - $24 = -8a$
    - $a = -3$
- Q 14.)
  - Concepts to understand quadratic equation solutions
    - Quadratic formula: x = $\frac{-b \pm \sqrt{b^2-4ac}}{2a}$
  - Step 1: Identify the coefficients needed
    - $3x^2 + 12x + 6 = 0 \Rightarrow ax^2 + bx + c$
  - Step 2: Plug into the quadratic formula
    - x = $\frac{-12 \pm \sqrt{144-72}}{6} = \frac{-12 \pm 6\sqrt{2}}{6}$
    - x = $-2 \pm \sqrt{2}$
- Q 15.)
  - Option 1: Plug in simple numbers and compare
    - $0\ ^\circ\text{C} = \frac{5}{9}(32 - 32)$
    - $\frac{5}{9}{}^\circ\text{C} = \frac{5}{9}(33 - 32)$
    - Statement is true
  - Option 2: Rework equation and follow same method as option 1
    - $F = \frac{9}{5}C + 32$
    - $32\ ^\circ\text{F} = \frac{9}{5}0 + 32$
    - $33.8\ ^\circ\text{F} = \frac{9}{5}(1) + 32$; 9/5 = 1.8
    - Statement is true
  - Option 3: Refer to option 2 to quickly get the answer
    - Statement is false

Calculator Section

- Q 13.)
    - Key Concept to understand is how to isolate a variable
    - Step 1: Rework equation for v
        - $h = -16t^2 + vt + k$
        - $vt = h - k + 16t^2$
    - Step 2: Solve for v
        - $v = \frac{h-k}{t} + \frac{16t^2}{t}$
        - $v = \frac{h-k}{t} + 16t$
- Q 14.)
    - Key concept is to understand conversions
        - 1 hour = 60 minutes
    - Correct answer is A
- Q 16.)
    - Key concept to know is how to interpret graphs and coordinates
        - Question is asking at which x -values do the y – values sum to zero
    - Step 1 =: Analyze the graph and look for function y-values that add up to zero.
        - f (-2) = - 2; g (-2) = 2
        - f (-2) + g (-2) = 0
        - The correct answer choice is B

Answer Explanations

SAT Practice Test #3

Section 1: Reading Test

QUESTION 21

Choice D is the best answer. The author explains that Ken Dial created an experiment to study the evolution of flight by observing how baby Chukars learn to fly. During the experiment, Dial noticed the unusual way Chukars use their "'wings and legs cooperatively'" to scale hay bales (lines 38-43), and he created "a series of ingenious experiments" (line 46) to study this observation. After his additional experiments, Dial determined that these baby birds angle "their wings differently from birds in flight" (lines 49-50).

Choices A, B, and C are incorrect because they do not accurately reflect the sequence of events in the passage.

QUESTION 22

Choice A is the best answer. In lines 6-9, the author explains that Dial was "challenged," or dared, by graduate students to develop "new data" on a long-standing scientific debate (the "ground-up-tree-down" theory).

Choices B, C, and D are incorrect because in this context "challenged" does not mean required, disputed with, or competed with.

QUESTION 23

Choice A is the best answer. The author explains that Dial created his initial experiment to try and create "new data on the age-old ground-up-tree-down debate," and that he looked for "clues" in "how baby game birds learned to fly" (lines 8-11). The note at the beginning of

the passage explains the "age-old ground-up-tree down debate" and offers two different theories on how birds evolved to fly. Finally, the last paragraph of the passage discusses WAIR in an evolutionary context.

Choices B, C, and D are incorrect because they do not identify Dial's central assumption in setting up his research.

QUESTION 24

Choice B is the best answer. In lines 6-11, the author provides evidence that Dial's central assumption in setting up his research is that the acquisition of flight in young birds is linked to the acquisition of flight in their ancestors. The author notes that Dial created a project to "come up with new data on the age-old ground-up-tree-down debate."

Choices A, C, and D do not provide the best evidence that Dial's central assumption in setting up his research is that the acquisition of flight in young birds is linked to the acquisition of flight in their ancestors. Choices A, C, and D are incorrect because they focus on Dial's experiment and his observations on ground birds.

QUESTION 25

Choice C is the best answer. When a rancher observed Dial's laboratory setup, he was "incredulous" that the Chukars were living on the ground, and he advised Dial to give the birds "something to climb on" (lines 16-23). This "key piece of advice" (line 14) led Dial to add hay bales to his laboratory. Dial later noticed that the Chukars were using their legs and wings to scale the hay bales, and this observation became the focal point of his research.

Choices A, B, and D are incorrect because the incident with the local rancher did not serve to reveal Dial's motivation for creating the project, emphasize differences in laboratory and field research, or introduce a contributor to a scientific theory.

QUESTION 26

Choice C is the best answer. The author explains that Dial's "aha moment" came when he determined the Chukars used "their legs and wings cooperatively" to scale the hay bales (lines 40-42). Dial then created additional experiments to study how the birds dealt with gradually steeper inclines: "[he filmed] the birds as they raced up textured ramps tilted at increasing angles" (lines 46-48).

Choices A, B, and D are incorrect because Dial's "aha moment" was not followed by Dial teaching the birds to fly, studying videos to find out why the birds no longer hopped, or consulting with other researchers.

QUESTION 27

Choice B is the best answer. Dial observed that as the Chukars raced up steep ramps, they "began to flap" and "aimed their flapping down and backward, using the force . . . to keep their feet firmly pressed against the ramp" (lines 49-53). Dial determined that the position of their flapping wings facilitated the baby Chukars' traction on the steep ramps.

Choices A, C, and D are incorrect because the passage does not indicate that the Chukars' speed, alternation of wing and foot movement, or continual hopping motions facilitated their traction on steep ramps.

QUESTION 28

Choice B is the best answer. In lines 61-63, the author explains that Dial named his scientific finding "WAIR, for wing-assisted incline running, and went on to document it in a wide range of species." In this context, Dial "documented," or recorded, the existence of WAIR in numerous bird species.

Choices A, C, and D are incorrect because in this context, "document" does not mean to portray, publish, or process.

QUESTION 29

Choice D is the best answer. In lines 70-74, the author explains that gliding animals do not use a "flapping flight stroke," or WAIR, wing-assisted incline running. Since Chukars, a ground bird, use WAIR to help scale steep inclines, it can be reasonably inferred that gliding animals do not use WAIR to aid in climbing slopes.

Choices A, B, and C are incorrect because the passage does not include information on gliding animals' offspring, their method of locomotion, or their feeding habits.

QUESTION 30

Choice D is the best answer. In lines 73-75, the author provides evidence that "the flapping flight stroke" is "something gliding animals don't do."

Choices A, B, and C do not provide the best evidence that gliding animals do not use a flapping stroke to aid in climbing slopes. These choices do not contain information about gliding animals.

Section 2: Writing and Language Test

QUESTION 17

Choice C is the best answer. It accurately interprets "not content to follow conventional business practices" as logically introducing the new practice of "employing women" described in the following sentences.

Choices A, B, and D are incorrect because none recognizes why the sentence is relevant to this particular location in the passage.

QUESTION 18

Choice B is the best answer. It is concise and free of redundancies.

Choices A, C, and D are incorrect because each pairs "overwhelming" and "tremendous," adjectives so close in meaning that together they present a redundancy.

QUESTION 19

Choice D is the best answer. It contains the pronoun "they," a necessary reference to "such regulations" in the previous clause.

Choices A, B, and C are incorrect because each lacks a necessary subject, such as a pronoun or noun.

QUESTION 20

Choice C is the best answer. It refers directly to benefits for the restaurants' female employees, the subject of the previous sentence.

Choices A, B, and D are incorrect because none logically builds upon the sentence that precedes it.

QUESTION 21

Choice D is the best answer. It provides punctuation that indicates that the opening dependent clause modifies the subject "Harvey Girls."

Choices A, B, and C are incorrect because each uses the punctuation for a dependent clause ("Living independently and demonstrating an intense work ethic") as if it were an independent clause.

QUESTION 22

Choice A is the best answer. It recognizes that the new information supports the previous sentence's claim that "the Harvey Girls became known as a transformative force."

Choices B, C, and D are incorrect because each misinterprets the relationship between the proposed text and the passage.