GRE*

Practice Test Explanations

KAPLAN

TEST PREP AND ADMISSIONS

Answers and Explanations

ANSWER KEY

Quantitative

1. B
2. B
3. B
4. E
5. C
6. B
7. C
8. C
9. D
10. E
11. D
12. C
13. E
14. A
15. E
16. D
17. A
18. C
19. A
20. D
21. D
22. A
23. A
24. D
25. D
26. A
27. C
28. D

Verbal

1. A
2. E
3. B
4. A
5. D
6. D
7. E
8. C
9. C
10. D
11. A
12. E
13. A
14. C
15. B
16. C
17. A
18. C
19. D
20. A
21. D
22. C
23. C
24. E
25. A
26. D
27. B
28. C
29. B
30. C

QUANTITATIVE EXPLANATIONS

1. (B)

In the two-digit number *jk*, the value of digit *j* is twice the value of digit *k*. We have to compare the value of *k* in Column A with 6 in Column B. If *k* were a digit from 5 to 9 inclusive, *j* would be a two-digit number, making *jk* a three-digit number. Since we know *jk* is a two-digit number, we know *k* must be less than 5 and Column B is greater.

2. (B)

Try picking numbers to substitute in for *x*. If *x* is a positive value, like 2, $|x| + |-4| = 2 + 4 = 6$. This is not equal to $|x - 4| = |2 - 4| = 2$. Eliminate choices **(C)**, **(D)**, and **(E)**, since *x* cannot be greater than zero. To determine which of the first two choices is correct, plug in 0 for *x*. $|0| + |-4| = |0 - 4|$. So *x* could equal 0, and the correct answer must be **(B)**.

3. (B)

Drawing a quick sketch for a question like this will quickly reveal that you're dealing with a right triangle problem. Eileen drives due north from town *A* to town *B* for 58 miles. Start at a point and draw a vertical line. Label the bottom *A* and the top *B*. Label the distance from *A* to *B* as 58. Next, she drives due east from town *B* to town *C* for a distance of 79 miles. Start at point *B*, draw a line straight over to the right, call the right endpoint *C*, and label the distance from *B* to *C*, as 79. You have a right angle, $\angle ABC$, so the distance from town *A* to town *C* is the hypotenuse of a right triangle. The two legs are slightly shorter than 60 and 80, respectively. This is one of the Pythagorean ratios, 6:8:10. So the distance from *A* to *C* is slightly less than 100 miles, since the two legs are slightly less than 60 and 80. Our value for Column A is less than 100, so Column B is greater and the answer is **(B)**.

4. (E)

The average of two numbers equals the sum of the numbers divided by the number of terms. So, if we label the unknown number *x*, we can write

$$3y = \frac{y - z + x}{2}$$
$$6y = y - z + x$$
$$6y - y + = x$$
$$5y + z = x$$

Thus, choice **(E)** is correct.

5. (C)

We know that *PQ* and *ST* have the same length and that *QR* and *RS* have the same length. So *PQ* + *QR* must be the same as *ST* + *RS*, which means that *PR* and *RT* have the same length. We can now see that triangle *PRT* is isosceles. We know that one angle has a degree measure of 80 and a second angle has a degree measure *x*. $\angle P$ must also have a degree measure of *x*, since it is opposite a side of equal length. The sum of the interior angles in a triangle always equals 180°. So

$$x + x + 80 = 180$$
$$2x + 80 = 180$$
$$2x = 100$$
$$x = 50$$

The answer is **(C)**.

6. (B)

First we can cancel factors of 2 from both sides. Canceling a 2 from each side leaves us with 16×64 on the left side of the equals sign, and $4^n \times 256$ on the right. Since 256 is evenly divided by 64, we can cancel a 64 from each side. This leaves us with 16 on the left side and $4^n \times 4$ on the right side. Canceling a 4 from each side leaves us with $4 = 4^n$. For this to be true, *n* must equal 1, and the answer must, therefore, be **(B)**.

7. (C)

Both columns contain the classic factorable of the difference between two squares. Each is equal to $x^2 - 4$. If you had not noticed this, you could have multiplied these binomials using FOIL. You would have found that, in each case, the second and third terms in the quadrinomials produced summed to zero. Therefore, only the first and last terms would be left. Since the quantities in each column are equal, the answer is **(C)**.

8. (C)

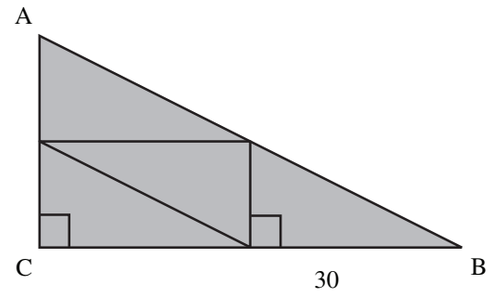
This is an approximation question. Using the grid and the Pythagorean theorem, you can approximate the lengths of the sides of the triangle, then add these lengths together to determine the perimeter. Looking first at side *AB*, the *x* value changes by 1.2 from *A* to *B*, while the *y* value changes by 0.5. So we are dealing with the 5:12:13 right triangle, and side *AB* has a length of 1.3. On side *BC*, the *x* value changes by 0.3, and the *y* value changes by 0.7. Do a quick estimate of *BC*'s length using the Pythagorean theorem:

$$(0.3)^2 + (0.7)^2 = (BC)^2$$
$$0.09 + 0.49 = (BC)^2$$
$$0.58 = (BC)^2$$
$$0.08 \approx BC$$

Now we can look at side *AC*. The *x* value changes by 0.9, and they *y* value changes by 1.2. So we're dealing with a 3:4:5 triangle, and the length of *AC* is 1.5. To calculate the perimeter, add the side lengths. 1.3 + 0.8 + 1.5 = 3.6. This is choice **(C)**.

9. (D)

When you bisect the bottom side of right triangle ABC and draw a vertical line to form the shaded area, you are quartering the area of the triangle. To do the math, you can use the formula for area of a triangle: base x height divided by 2. So you are comparing 30 x *h* divided by 2, or 15*h*, to 60 x 2*h* divided by 2, or 60*h*. 15*h* divided by 60*h* is $\frac{1}{4}$. If you were to draw the answer into the diagram, which you may want to do on your scratch paper on Test Day, you would get something like what you see below, which illustrates the relationship between the shaded area and the triangle ABC.



10. (E)

When finding the number of combinations in which one item is selected from each group, multiply the number of items in each group. In this case, $4 \times 12 \times 3 = 144$, which is choice **(E)**.

11. (D)

It would be too time-consuming to perform the division on every answer choice here. It is much easier to approximate values. First, eliminate choices where the numerator has as many zeros as, or more zeros than, the denominator. This means **(A)** and **(B)** are out. Since each of the remaining answer choices has one more zero in the denominator than in the numerator, we can find a quick way to the answer: the correct answer choice will be the one in which the numerical value of the nonzero digit in the numerator divided by the numerical value of the nonzero digit in the denominator is the highest. This is choice **(D)**.

12. (C)

First, use the pie chart to see that the 45- to 54-year-old age group constituted 20% of the general surgeons in 1986. Next, use the bar graph to find the number of general surgeons. For general surgery, the bar for males indicates that there were about 35,000 male general surgeons in 1986, and the bar for females indicates that there were about 2,000 female general surgeons. So there were approximately 37,000 general surgeons in 1986. 20% of 37,000 will be close to the number of general surgery physicians between ages 45 and 54 (remember that our reading of the bar graphs gave us approximations, so these will be mere estimates). What's 20 percent of 37,000? (0.2)(37,000) = 7,400. The closest answer choice is **(C)**.

13. (E)

This equation requires us to use only the bar graph. Using the bar graph, we can see that there were approximately 37,000 male family practice physicians in the United States in 1986, and that they had approximately 7,000 female counterparts. This sums to 44,000 family practice physicians. The question stem tells us that these 44,000 physicians represented 7.5% of the total number of physicians in the United States. Setting up a proportion, we have:

$$\frac{7.5}{100} = \frac{44{,}000}{x}$$
$$7.5x = 4{,}400{,}000$$
$$x = 586{,}666.7$$

The closest approximation is choice **(E)**.

14. (A)

The degree measure around the circumference of a circle is 360. In this case, we see that angle P is 90°. Thus, sector QPR equals one-quarter of the area of the circle. Since the sector has an area of 4, the area of the circle must be 16. Using the formula for the area of a circle, we have:

$$16 = \pi r^2$$
$$\frac{16}{\pi} = r^2$$
$$\frac{16}{3.14} \approx r^2$$
$$5.1 \approx r^2$$

From here, we can see that the value of r is greater than 2, so choice **(A)** is correct.

15. (E)

First, find the value of m. One way to do this is to keep multiplying 3's until you see that you need four of them multiplied together to equal 81. Or, you may have noticed that $9 \times 9 = 81$, and $9 = 3^2$. Since $3^2 \times 3^2 = 3^{2+2} = 3^4$, you would see that $m = 4$. Either way, once you have the value of m you can plug it into the stem to see that $4^3 = 4 \times 4 \times 4 = 64$. That is choice **(E)**.

16. (D)

Since the ratio of $2a$:b is 8 times the ratio of b:a, we can write that $\frac{2a}{b} = 8\frac{b}{a}$. From this point, we can pick numbers. Seeing lots of 2's and 4's in the answer choices, let's choose one of those values for the value of a. Suppose $a = 2$. Substituting this into our equation, we see:

$$\frac{2(2)}{b} = 8\frac{b}{2}$$
$$\frac{4}{b} = 8\frac{b}{2}$$
$$8 = 8b^2$$
$$1 = b^2$$
$$1 = b$$

We can then substitute our values for a and b to see that $\frac{b}{a}$ could equal $\frac{1}{2}$, which is answer choice **(D)**.

17. (A)

We know that $PQ = 4$. Using the formula for the area of a rectangle, we find that

$$lw = \text{area of rectangle}$$
$$4w = 12$$
$$w = 3$$

So we know that PR has a length of 3. Since PR has a length of 3, PQ has a length of 4, and angle P must, by the definition of a rectangle, have an angle measurement of 90°, we have a 3:4:5 right triangle. So $QR = 5$. QR is a diameter of the circle. Half of the diameter, or 2.5, will be the radius of the circle. That's answer choice **(A)**.

18. (C)

We can create two equations from the centered information: one for the number of apples Henry purchased, and one for the number of apples Jack purchased. The first few words in the centered information tell us that $h = 2x$. The rest of the centered information tells us that $j = \frac{2}{3}h - 10$. Note that we have three variables for only two distinct linear equations. So we're not going to be able to solve for all the variables. But we can see that Column B is written in terms of x. If we can solve for j (which is what Column A is) in terms of x, we can answer the question. Doing the work, we see

$$j = \frac{2}{3}h - 10$$
$$j = \frac{2}{3}(2x) - 10$$
$$j = \frac{4x}{3} - 10$$

Comparing this to Column B, we see that they look similar. If we manipulate our equation so that it has one denominator on the right side, we will be able to compare.

$$j = \frac{4x}{3} - 10$$
$$j = \frac{4x}{3} - \frac{30}{3}$$
$$j = \frac{4x - 30}{3}$$

Thus, Columns A and B are equal, and the answer is choice **(C)**.

19. (A)

Find a common denominator to convert this equation out of fraction form. Let's make $6y$ the denominator.

$$-\frac{2}{y}\left(\frac{6}{6}\right) + \frac{1}{3}\left(\frac{2y}{2y}\right) = -\frac{1}{2y}\left(\frac{3}{3}\right)$$
$$-\frac{12}{6y} + \frac{2y}{6y} = -\frac{3}{6y}$$
$$2y - 12 = -3$$
$$2y = 9$$
$$y = 4.5$$

Thus, Column A is larger, and the answer is choice **(A)**.

20. (D)

We cannot make too many assumptions on the GRE. We have an isosceles triangle, but we do not know which two sides are equal. *AB* could equal *BC*, which would make the length of *AB* equal 12. Or, *AC* could equal *BC*, in which case the length of *AB* could be any value greater than 0 and less than 24. Or, *AC* could equal *AB*, in which case the length of *AB* could be any value greater than 0. Thus, we cannot determine whether *AB* is longer than 14, and the answer to the question is **(D)**.

21. (D)

We can estimate quite a bit from our graph. Taking a look at our line chart, we can see that as time progressed energy use increased steadily. It increased sharply from 1960 to 1965, then more gradually from 1965 to 1980. Now, because in more recent years the overall use is much larger, if the percentage of industrial use is about the same over all the years, then as the overall use gets bigger the amount used for industrial purposes will get larger also. Let's take a quick look at the bar graph and see if that is the case. Is the percentage being used for industrial use about the same? Well, it doesn't fluctuate much from 1960 to 1970, but in 1975 industrial use jumped significantly as a percentage of the total, then shrank significantly going to 1980. 1975 is the most likely answer, and if you find 40% of 690 million (your amount for 1975) you get 276 million kilowatt hours. Then if you find 20% of 710 million (your amount for 1980) you get only 142 million kilowatt hours. So choice **(D)**, 1975, is the correct answer.

22. (A)

Statement I states that farm use of energy increased between 1960 and 1980. How many total kilowatt hours were used in 1960? 500 million. In 1980, 710 million. What was the percent farm use in 1960? It was 30% of the total in 1960 and a little bit less than 30%, around 28%, in 1980. But the percent is very close together while the whole has become much larger from 1960 to 1980, so 30% of 500 million is less than 28% of 700 million. Farm use of energy did go up in that 30-year period and statement I is going to be part of our answer. That eliminates two choices, **(B)** and **(D)**. How about statement II? This one is harder. In 1980, industrial use of energy was greater than it was in 1965. But what was it in 1965? Industrial use of energy in 1965 was 30% of 600 million. We got the percentage from the bar graph, the total from the line chart. OK, 30% of 600 million is 180 million. But what about 1980? In 1980 industrial use of energy was 20% of a larger whole, 710 million kilowatt hours. Well, 20% of 710 is 142 million. That's less than 180 million. But what about 1980? In 1980 industrial use of energy went down from 1965 to 1980, so this can't be inferred from the graph, and is not part of our answer. That cuts out **(C)** and **(E)**, leaving only choice **(A)**, I only. Statement III is another easy one to eliminate because it says more people were employed by the government of country *Y* in 1980 than in 1960. These charts and graphs deal only with energy use, not with employment, so it's irrelevant and we can eliminate it. Only statement I can be inferred, and **(A)** is correct.

23. (A)

We're told that the area of triangle *ABC* is $21\sqrt{2}$ and if we use *AC* as the base of the triangle, in our diagram we're given a height for triangle *ABC*: 7. So we can use this to find the length of *AC*. When we find the length of *AC*, what do we have? We have the hypotenuse of right triangle *ADC*. Given the

hypotenuse and the length of leg *AD*, which is given in the diagram as length 6, we'll be able to find the length of the third leg of the triangle, side *DC*, which is what we're looking for. OK, going back to triangle *ABC* where we started, the area is $21\sqrt{2}$ and the height is 7. The area of a triangle is $\frac{1}{2}$base $\times$ height, so $\frac{1}{2} \times 7 \times$ (length of *AC*) is $21\sqrt{2}$. That means that $7 \times$ (length of *AC*) is $42\sqrt{2}$, and *AC* must therefore have a length of $6\sqrt{2}$. Now we can look at right triangle *ADC*. Here is a right triangle with one leg length 6, the hypotenuse length of $6\sqrt{2}$ and the third side unknown; what we have is an isosceles right triangle. That's one of the famous Pythagorean ratios: it's an $x{:}x{:}x\sqrt{2}$ triangle. So *DC* must have length 6, **(A)**.

24. (D)

We're told that a particular dentist earns *n* dollars for every filling she puts in + *x* dollars for every 15 minutes she works. So the money is figured two different ways at once; a certain number of dollars for each filling and then a certain number of dollars per hour, though it's represented in terms of 15 minutes. Our result will be a two-part answer choice, one dollar quantity for the hourly rate and another dollar quantity for the number of fillings. Notice that the number of fillings she put in is given to you: she put in 21 fillings. She makes *n* dollars for each of those fillings, so she gets 21*n* dollars for her filling work. You can eliminate **(B)** and **(E)** because **(B)** has only 14*n* dollars in it and **(E)** has $\frac{21}{4}n$ dollars in it. There's no reason to divide 21 by 4. The number of dollars for the fillings is just number of fillings times *n*, so there's no reason to divide by 4. That narrows our choices down to **(A)**, **(C)**, and **(D)**. How about the hourly rate? Well, the dentist works 14 hours in a week. Does that mean that she makes 14*x* dollars? No, because the rate isn't given to us in dollars per hour. It's dollars for every 15 minutes. Now if she makes *x* dollars for every 15 minutes and 15 minutes is $\frac{1}{4}$ of an hour, then we have to multiply that rate by 4 to get the rate per hour: it's 4*x* dollars per hour. Well, 4*x* times 14 is 56*x*, so **(D)**, $56x + 21n$, is correct.

25. (D)

We have $\left(\frac{1}{4}\right)$ to the *x* power in Column A and we have $\left(-\frac{1}{4}\right)$ to the *x* power in Column B. Remember that a negative value to an even power is positive, while a negative value to an odd power is negative. So when *x* is odd, Column A is greater, and when *x* is even, the columns are equal. So choice **(D)** is the correct answer.

26. (A)

Draw in a radius in circle *A* going up, another going down, another going left, and another going right, and do the same thing with circle *B* and label each of them *r*. You've drawn a line that starts from the point on the far left where circle *A* touches line *PS* and goes across circle *A* as a full diameter and another full diameter of circle *B* to where circle *B* touches line *QR* so that your line is made up of four radii; four equal lengths of *r* is equal to the length of the rectangle. You can do the same thing going from top to bottom, except there are only two radii this time. So the dimensions of our rectangle are 2*r* height and 4*r* base or, if you prefer, 4*r* in length, 2*r* in width. What's the perimeter of rectangle *PQRS* (Column B)? It's $2r + 2r + 4r + 4r$, or $12r$. What about the sum of the circumferences of the two circles (Column A)? You simply plug in *r* for the value of the radius in your circle circumference formula. Circumference = $2\pi \times r$. You have circumference of $A = 2\pi \times r$ and circumference of $B = 2\pi \times r$, so we have all together $2 \times 2\pi \times r$ or $4\pi \times r$ as the sum of the circumferences of circle *A* and circle *B*. We have $4\pi \times r$ against $12 \times r$. What is greater, 4π or 12? 12 is 4×3. π is 3.14, something a little bit greater than 3, so 4π is greater than 4×3, and Column A has a greater value than Column B, so **(A)** is the correct answer.

27. (C)

When a question seems to require laborious calculations, like calculating the value of 9^7, look for a strategy that will simplify the math. This problem is best solved with a little dexterity with factoring. The first thing you can do is to factor 9^5 out of the expression in Column A, giving you $9^5(9^2 - 1)$. Then, simplifying what's inside the parenthesis, you get $9^5(81 - 1) = 9^5(80)$. Looking to the expression in Column B, you can see now that the two columns are equal and the correct answer is Choice **(C)**. You could also have solved this problem by dividing both columns by 9^5 and then comparing $9^2 - 1$ to 80, which still gives you Choice **(C)**.

28. (D)

The catch here is that it's not which of the following is 850% *of* 8×10^3, it's which of the following is 850% *greater than* 8×10^3. Well, what's bigger: 850% of 1 or a number that's 850% greater than 1? 850% of 1 is 8.5×1, or 8.5. But a number that's 850% greater than 1 is 1 + 8.5, or 9.5. So we're looking for 8×10^3 plus 850% of 8×10^3. 10^3 is 1,000, so 8×10^3 is 8,000. So we take 8,000 and have to find 850% of it, or $8.5 \times 8{,}000$. $8 \times 8{,}000$ is 64,000, $0.5 \times 8{,}000$ is 4,000, 4,000 plus 64,000 is 68,000. Add that to the 8,000 you started with and you get 76,000. The choices are all in scientific notation, something times 10 to a power. Only **(D)** has a 7.6 in it, 7.6×10^4 which, checking backward, is $7.6 \times 10{,}000$. **(D)** is correct.

VERBAL EXPLANATIONS

1. (A)

A malediction is a curse. We want something like benediction, and we find "blessing" in correct choice **(A)**. The opposite of "preparation," **(B)**, is lack of preparation. **(C)**, "good omen," had bad omen as its opposite. The opposite if **(D)**, "liberation," is captivity. The opposite of "pursuit," **(E)**, is tough to define but it sure isn't malediction, so **(A)** is correct.

2. (E)

"Diluvial" means having to do with a flood. You may have heard the word antediluvian meaning "before the Flood," Noah's flood, as in a long time ago. So our bridge is "means having to do with." In **(A)**, "criminal" can mean having to do with crime but it doesn't mean having to do with "punishment." In **(B)** "biological" means having to do with living things. "Bacteria" are living things but to define biological as having to do with bacteria would be too narrow. In **(C)** "judicial" means having to do with the administration of justice. A "verdict" is the decision about the guilt or innocence of a defendant, a small part of the judicial process. **(D)**'s "candescent" means giving of light rather than having to do with light. This leaves **(E)**, and "cardiac" means having to do with the heart, so **(E)** is correct.

3. (B)

Something that is lavish, or extravagant, is not Spartan, or bare. For this question, even if you didn't know what the word SPARTAN in the stem pair meant, you could still come up with the answer. When you don't know the vocabulary, go straight to the answer choices and begin to eliminate choices that have weak bridges or synonymic relationships—the correct answer choice will never be a pair of synonyms. Choices **(A)** and **(D)** are synonymic pairs, since *perforated* means *punctured* and *unadorned* means *bare*. So you can eliminate **(A)** and **(D)**. Choices **(C)** and **(E)** have no necessary relationships between the words, so you can eliminate based on weak bridges: There is no link between *decorous* (polite) and *tinted*, nor between *extravagant* and *lively*. In choice **(B)**, something *perfidious* (treacherous) is not *artless* (without deceit). You would have the correct answer even if you didn't know the word *perfidious*.

4. (A)

The word "but" signals a contrast between the opinion of plate tectonics when the theory was first proposed and the opinion of the theory now. Either people disbelieved the theory at first and believe it now or vice versa. Choice **(A)** provides the contrast. If most geophysicists now grant its validity, they believe in it. That's the opposite of opposing it, so **(A)** is the answer. In **(B)**, "consideration" is a neutral term. It doesn't provide the necessary contrast with "see." In **(C)**, "acclamation" means loud praise and "boost" means to support enthusiastically—no contrast there. In **(D)**, a "prognostication" is a prediction of the future, which doesn't make sense in this context and "learn its validity" doesn't make sense either. In **(E)**, "contention" is argument and to "bar" means to exclude or forbid—there's no contrast with this pair.

5. (D)

"Fecundity" means fertility, the capacity for producing life, whether it be children or vegetation. Clearly the opposite would be **(D)**, "sterility," which refers to an inability to reproduce. None of the other choices comes close, and the only unusual word is **(A)**'s "levity," which means silliness or frivolity.

6. (D)

"Quixotic" means impractical, after the title character of *Don Quixote*. A realist is a person who is especially realistic. Realistic is the opposite of quixotic, so a realist is never quixotic. In **(A)**, pedantic people show off their learning. Many scholars are pedantic, so this won't work. In **(B)**, a fool is foolish—a synonym for idiotic. The same relationship holds true for **(C)**—an idler is a lethargic person. **(D)** looks good—a tormentor is vicious or cruel, never sympathetic. **(E)** "dyspeptic" means suffering from indigestion. A diner is someone who eats—some diners get dyspeptic, some don't, so **(D)**'s correct.

Reading Comprehension Passage 1—Schools of Fish

The style of this natural science passage is factual, descriptive, and straightforward, although the discussion does get fairly detailed. The topic is clear from the first sentence: our knowledge of how fish schools are formed and how their structure is maintained. The next two sentences get more specific and express the author's main point, which is that, contrary to the previous theory, the structure of fish schools is not merely dependent on vision but also involves "the lateral line, an organ sensitive to transitory changes in water displacement." The tone is objective and positive, but it's worth noting that since the author is contrasting the new knowledge about lateral lines with older, outdated knowledge, he must be skeptical of the notion that vision is the only means of forming and maintaining fish schools. The rest of the passage is a more technical report of how the schools are structured, how individual fish actually behave in forming schools—this is all merely detail and the best way to deal with it is to read attentively, but more quickly than the earlier lines.

7. (E)

This Roman numeral-format question focuses on detail. The stem is asking what the structure of fish schools depends on, and the focus is on the more technical elements in the last half of the passage. The author states that ideal positions of individual fish aren't maintained rigidly, and this contradicts statement I right away. The idea of random aggregation appears: the school formation results from a probabilistic arrangement that appears like a random aggregation, so the idea is that fish are positioned probabilistically, but not rigidly so. Statement II is true, repeating the idea in the next sentence that fish school structure is maintained by the preference of fish to have a certain distance from their neighbors. Statement III is true too. It's a paraphrase of the last two sentences, that each fish uses its vision and lateral line first to measure the speed of the other fish, then to adjust its own speed to conform, based primarily on the position and movements of other fish. So statements II and III are true and **(E)** is the right choice.

8. (C)

You know the primary purpose here is to present new ideas that challenge the emphasis of the old theory. So you're probably safe in assuming that the author's attitude toward the old idea will be at least somewhat negative. You can therefore cross off choices that sound neutral or positive: **(B)**, **(D)**, and **(E)**. The negative choices are **(A)** and **(C)**. **(A)** is out because it's much too extreme—the author is not offended or indignant, nor does he argue that vision is insignificant—quite the contrary. This leaves **(C)** as the best choice. The author disagrees with the old theory since it overlooks the role of the lateral line, but the disagreement is tempered by an acknowledgement that the old theory did recognize the role of vision. So it's a qualified or measured disagreement—the adjective "considered" works well here.

9. (C)

Question 9 involves inference, as the word "suggests" in the stem indicates. It refers to the latter, more detailed half of the passage, and that's where correct answer **(C)** is. It's logically suggested by the last couple of sentences in which you're told that, once it establishes its position, each fish uses its eyes and lateral line to measure the movements of nearby fish in order to maintain appropriate speed and position. Since the school is moving, each fish's adjustments must be ongoing and continuous, as **(C)** states. **(A)** is wrong because auditory organs aren't mentioned. Lateral lines correspond to a sense of touch, not hearing. **(B)** and **(D)** both have words that should strike you as improbable. Nothing suggests that each fish rigorously avoids any disruptive movements, **(B)**, or that the fish would make sudden, unexpected movements only in the presence of danger, **(D)**. The idea in **(E)** also isn't mentioned. It's never suggested that a fish, once part of a school, completely loses its ability to act on its own.

10. (D)

"Despite" clues you in to a contrast between something "professed," claimed, or pretended, and reality, indicated by the glint in her eyes. A glint in someone's eye is a sign of strong interest, so "obsession" and "fascination" in **(A)** and **(D)** are tempting. We want a contrast with strong interest,

so the first word has to be something like disinterest. We find "indifference" in **(D)** and "obliviousness" in **(C)**. Since both words in **(D)** fit, it must be correct. None of the others offers the kind of contrasts we need. There's no contrast between "intelligence" and "obsession" in **(A)**, between "interest" and "concern" in **(B)**, or between "obliviousness" and "confusion" in **(C)**. We get a contrast in **(E)** between "expertise" and "unfamiliarity," but the words don't make sense—a glint in someone's eye isn't a sign of unfamiliarity.

11. (A)

"Mawkish" means sickeningly sentimental. "Unsentimental," **(A)**, is the answer here. The opposite of **(B)**, "sophisticated," is naive or simple. The opposite of "graceful," **(C)**, is clumsy. The opposite of "tense," **(D)**, is relaxed. There are various antonyms to "descriptive," **(E)**, but "mawkish" isn't one.

12. (E)

The clue here is the structure "quite normal and even _____": the missing word has a more positive meaning than the word "normal." Then we get "I was therefore surprised," which tips us off to look for contrast. "Commendable" and "complimentary" in **(A)** are both positive. In **(B)**, "odious" means hateful, so "odious" and "insulting" are both negative. "Conciliatory" in **(C)** means placating or reconciling, which fits in with "apologetic." "Commonplace" and "typical" in **(D)** mean the same thing. Only correct choice **(E)** is left—"laudable" means praiseworthy while "derogatory" means belittling or detracting.

13. (A)

The word "filter" is used as a verb. When you use a filter, an "impurity" is removed, so you filter to remove an impurity. The word "expurgate" in **(A)** means to censor to remove obscenities—you expurgate to remove an obscenity. To "whitewash" **(B)** is to misrepresent a bad thing to make it look better. An "infraction" isn't removed by whitewashing it, it's only covered up, so **(B)** isn't parallel. In **(C)**, "perjury" is the crime of lying under oath. To "testify" doesn't mean to remove a false statement. In **(D)**, "penance" is something you do to atone for a sin, but you didn't "perform" to remove "penance." And in **(E)** you don't "vacuum" to remove a "carpet." So, **(A)** is correct.

14. (C)

"Discharge" means unburden, eject, or exude. However, it has a more specific meaning in military context: to release or remove someone from service. The opposite is to "enlist," **(C)**. The opposite of **(A)**, "heal," is make sick. The opposite of **(B)**, "advance," is retreat. **(D)** "penalize" means punish. The opposite of "delay," **(E)** is hasten.

15. (B)

"Temerity" means recklessness or foolish daring. Its opposite is hesitancy or carefulness. "Blandness," **(A)**, is a lack of character, not a lack of courage. **(B)**, "caution," fits—one with temerity lacks caution. The opposite of **(C)**, "severity," is leniency. The opposite of **(D)**, "strength," is weakness. "Charm," **(E)**, is personal appeal. The best answer is **(B)**, caution.

Reading Comprehension Passage 2—White Abolitionists and Suffragists

In the first part of this passage, the author details the nonrevolutionary nature of white abolitionists and suffragists. In the first sentence, she explains that the majority of people in these groups even worked to convince their compatriots, or countrymen, that their beliefs were not revolutionary, but rather that they advocated changes that supported the current democratic system and the accepted distribution of power within the democratic system (meaning they accepted that mostly white males held positions of power). The next sentence explains that non-Garrisonian abolitionists even shunned revolutionary ideas such as marriage between races. The author also discusses the suffragists, and the fact that racism and nativism were common among members of this group. The author's purpose is then revealed: she proposes that, contrary to the suggestion of historians, the majority of non-Garrisonian abolitionists and the majority of suffragists did not advocate true equality, but rather they reflected the racist views common to their generation.

16. (C)

We need the author's main point, which we just formulated—the actions of abolitionists and suffragists demonstrate the meaning that equality had in their time. **(C)** expresses this, and it's the correct answer. **(A)** is wrong because it's the presentist historians who believe that the actions of the abolitionists and suffragists compromised their principles. **(B)** has nothing to do with the author's discussion. A comparison of beliefs never occurs. As for **(D)**, the author charges presentist historians with misinterpreting abolitionist and suffragist ideology, not with willfully misrepresenting it. Finally, **(E)** constitutes a criticism the author makes about presentist historians—that they impose their own value systems on the past, rather than interpreting actions in the appropriate historical context.

17. (A)

We can infer something about the author's concept of the principle of equality—it's clear that the author thinks the principle of equality is not abiding. Rather, she thinks it encompasses different things for people at different times. We can give the nod to statement I, which eliminates **(B)**, **(C)**, and **(E)**. Since the only two choices left include statement I only or statements I and II only, statement III can be eliminated. Statement II—does the author suggest that the suffragists applied the principle of equality more consistently than abolitionists? No, if anything, she implies that they applied it equally consistently. We're left with **(A)** as our answer. We know statement III can't be true—presentist historians say that abolitionists and suffragists compromised the principle of equality, not the author, who thinks their actions conform to their generation's conception of equality.

18. (C)

Question 18 deals with the logical structure of the author's argument—how she argues her case against the presentist historians. She uses the same evidence to support her views that they do; she cites the actions of the suffragists and abolitionists, states that the presentist historians knew of these actions, then presents her own interpretation of these same actions. She's applying a different interpretation to the same set of facts, and **(C)** is our answer. The author doesn't cite any new evidence, so both **(A)** and **(B)** can be ruled out. As for **(D)**, the author refutes not the accuracy of the historians' data, but the accuracy of their interpretation. Finally, the author doesn't claim that the historians' argument is flawed by a logical contradiction, **(E)**. She claims instead that they erred by assuming that equality is an abiding value and by measuring the actions of past groups against this concept of equality.

19. (D)

Whatever we're doing to the burden of medical costs in the first blank is causing the removal of the second blank, signaled by "thereby." In **(A)**, it doesn't make sense to say that to "augment," or add to, the burden would remove a problem—it could make the problem worse. In **(B)**, a "perquisite" is a reward over and above one's salary. But would eliminating a burden remove a perquisite? In **(C)**, to "ameliorate" means to improve, but you can't talk about removing a major "study of" medical care. **(D)** is perfect. To "assuage" means to make less severe and an "impediment" is an obstacle. Assuaging the burden would remove an impediment to medical care, so **(D)**'s correct. As for **(E)**, to "clarify" means to explain or make clear, and explaining the burden of medical costs wouldn't remove an "explanation."

20. (A)

"Paraphrase" means restatement of a text using different words. "Verbatim" means word for word, or exact. A paraphrase is never verbatim—the words are near opposites. The only choices opposite in meaning are "approximation" and "precise" in **(A)**. An approximation is an estimate, while something that's precise is exact, so an approximation is never precise. A "description" might or not be "vivid" in **(B)**. In **(C)**, "apt" means appropriate, so a "quotation" could be apt. There's no relationship in **(D)**, "interpretation" and "valid," or in **(E)**, "significance" and "uncertain." **(A)** is correct.

21. (D)

In question 21, we learn that an early form of writing, Linear B, was _____ in 1952. The keyword "but" tells us that Linear A, an older form, met with a contrasting fate, so at first glance it seems that we need a pair of contrasting words. However the

words "no one has yet succeeded in" precede the second blank, so instead of a word that is contrasted with the first blank, we need a word that means about the same thing. That leads us to pick **(D)**. The words "deciphered" and "interpretation" are similar since both imply understanding. The word "superceded" in **(A)** means replaced by something more up to date—not giving an "explanation" of something. **(B)**—in the context of ancient languages, a "transcription" would probably be a decoded version of something. That would be the opposite of encoding something. **(C)**'s "obliterated" and "analysis" imply a contrast—wiping something out is different from figuring it out. In **(E)**, "discovered" and "obfuscation" are more at odds than they are alike. "Obfuscation" means confusion, while a discovery usually sheds light on a situation.

22. (C)

Question 22 establishes a contrast between Western religion's view of good and evil as discrete, opposing forces, and Eastern religion's view of these impulses as part of an integrated whole. Look for a word that would describe Western religions as opposed to Eastern religions. "Dualistic," choice **(C)**, is the only choice that pinpoints the distinction discussed in this sentence.

23. (C)

It is in the nature of a "sphinx" to "perplex." This comes from Greek mythology—the sphinx was a monster that asked a riddle that no one could answer. "Sphinx" can be used to mean anything that is difficult to understand, so our bridge is that a sphinx is known for perplexing. In **(A)**, an "oracle" is a soothsayer, someone who predicts the future—an oracle doesn't "interpret." In **(B)**, a "prophet" is someone who foretells the future. This may help someone to "prepare," but you wouldn't say that a prophet is known for preparing. In **(C)**, a "siren" can mean a beautiful or a seductive woman who "lures" men. So **(C)** looks good—a siren lures in the same way that a sphinx perplexes. In **(D)**, the role of a "jester" is to amuse, not necessarily to "astound." In **(E)**, a "minotaur" is a mythological monster—it didn't, by definition, "anger" anyone.

Reading Comprehension Passage 3—Ancient Greek Social Anxiety

The third and final passage is a lengthy one, divided into three paragraphs. If you figure out what each paragraph covers, you've understood the passage's handful of ideas, plus you've sketched out a rough mental map. In this passage, the first 10 or 15 lines take you through the first paragraph and into the second and if you were careful you picked up the author's broad topic, (ancient Greek social anxiety), the style of writing (dense and scholarly), and the tone or attitude (expository and neutral).

The second paragraph gives you the central point—what the Greeks apparently succeeded in doing was discovering a way of measuring and explaining chaotic experience so that chaos was no longer so threatening and anxiety-producing. This recognition of order in the midst of chaos served as the basis of a spiritual ideal for the Greeks. So by the end of the second paragraph, you have the author's central idea plus all the information about style, tone, and topic from the beginning. The first sentence of the last paragraph tells you that the search for order and clarity in the midst of chaos is reflected especially in Greek philosophy. The rest of the paragraph is a description of how various philosophers and schools of philosophy offered solutions to the problem of finding order and measure in a disorderly world.

24. (E)

This kind of primary purpose question is common, and here the right answer is **(E)**. In this case, both the noun and the verb are right on the money. The verb is exactly right for this author's expository neutral tone, and a cultural phenomenon—the Greeks' perception of chaos and their solution to the problem—is what the author is "describing." The verbs in **(B)** and **(C)** ("challenge" and "question"): eliminate them right away—no opinion is given but the author's own, and philosophy in **(C)** is discussed only in the last paragraph. The noun phrase in **(A)**, "conflicting viewpoints," is wrong. **(D)** is the most tempting—the author is looking at history and mentioning certain facts, but this misses the author's purpose, which is not to simply list facts but rather to describe and define something in the form of a thesis.

25. (A)

This is from the first sentence of the second paragraph and it's the central idea that's being focused on: that the discovery of this substratum helped bring a satisfying new sense of order into experience, thus reforming the Greek's perception of worldly chaos. The choice that paraphrases this point is **(A)**: the perception of constant change was altered by the idea of a permanent principle of order lying underneath it—this is the main point of the passage. **(B)** is out because severe social problems are never mentioned, at least not in any concrete way. As for **(C)**, it misses the point made in the sentence to which the question refers. The passage does refer to pain and bewilderment and to an earlier period of political turbulence, but this choice goes overboard with its notions of painful memories and national suffering and so on. As for **(D)**, a few lines into the second paragraph the author says directly that the discovery did much more than satisfy intellectual curiosity. And **(E)** also contradicts the author, distorting a detail at the end of the paragraph. It's not mysticism but rationality and careful analysis that lead to order and clarity.

26. (D)

The author is arguing in the second, third, and fourth sentences that the Greeks identified rational thought and spiritual ideals as inseparable. Rationality, order, measure, and so forth became equivalent to spiritual ideals for the Greeks. Toward the end of the second paragraph the author states that rationality and spirituality are not mutually exclusive. The choice that's most clearly consistent with this is **(D)**. As for **(A)**, the passage never suggests that ordinary Greeks were unfamiliar with or uninterested in the concepts of rational thought and spiritual ideals. The passage suggests quite the contrary. **(B)** and **(C)** are both inconsistent with the passage as well. All the philosophers mentioned accepted the notion that rationality was the key, amounting to an ideal to understanding the world. **(E)** picks up on the mention of poetry at the beginning of the last paragraph, but the point there is that Greek poetry manifested the sense of cultural anxiety that philosophy tried to alleviate.

27. (B)

"Saturnine" is probably the hardest word in the section. It means heavy, gloomy, sluggish, so its opposite is cheerful or lively. The answer is **(B)**, "ebullient," which means bubbling with enthusiasm or high-spirited. **(A)**'s "magnanimous" means generous or high-minded. "Finicky," **(C)**, means fussy or picky. The opposite of **(D)**, "unnatural," is natural, and **(E)**, "impoverished," means poor.

28. (C)

"Vitiate" means corrupt, put wrong, spoil, or make worse, and the opposite is improve or correct. The closest choice is "rectify," **(C)**. **(A)**, "deaden," is way off. The opposite of "trust," **(B)**, is distrust or suspect. The opposite of "drain," **(D)**, is fill up. And the opposite of "amuse," **(E)**, is bore or upset.

29. (B)

"Intransigent" means unyielding—the opposite of flexible. Our bridge is "a person who is intransigent is lacking in flexibility." The only pair that looks good is **(B)**, "disinterested" and "partisanship." One who's disinterested is unbiased—he doesn't have an interest in either side of a dispute. "Partisan" means partial to a particular party or cause. That's the opposite of disinterested. So partisanship, the quality of being biased, is lacking in a person who could be described as disinterested. In **(A)**, "transient" means transitory, so you wouldn't say that someone transient lacks "mobility." In **(C)**, "dissimilar" means not similar, along the same lines as "variation." You can't say that something "progressive" lacks "transition," so **(D)** is no good. The word "ineluctable" in **(E)** means inescapable, while "modality" is a longer way of saying mode.

30. (C)

"Jejune" can mean immature or sophomoric. The opposite would be adult or correct choice **(C)**, "mature." "Morose," **(A)**, means sad or moody. The opposite of "natural," **(B)**, is artificial. **(D)**, "contrived," means artificial or devised. The opposite of "accurate," **(E)**, would be inaccurate or incorrect.

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