Chapter 10
Practice Test 1
Imagine going to a fast food restaurant a few years from now. You order a burger, and before you receive your order, the burger is placed through gamma-ray treatment. Order some fish, and you'll have to wait for the fish to be placed under a pressure three times higher than the pressure found in the deepest part of the ocean. Why would restaurants go to such lengths? Simply, to make sure your food is safe.

The threat of bacteria entering into our food is at an all-time high. New bacteria such as *Escherichia coli* and *Vibrio vulnificus* have alarmed many food handlers, and have caused an increasing number of food poisoning deaths for the last five years. As a result, food processors are adopting rigorous standards of cleanliness. Food scientists are helping. Many scientists are proposing radical alternatives to common food treatment, such as some of the examples described above. While the new techniques are costly, they are not as costly as the potential lawsuits, bad publicity, and human loss that one outbreak could cause.

The real price to this new technology may not be in dollars, but in overall taste. Scientists admit that tastes may vary in certain foods depending on their processing treatment. As a layman, it seems that placing an oyster under 90,000 pounds of pressure sure seems likely to have some effect on the taste. I just hope that when the gamma rays remove any bacteria, they'll leave me with the wonderful joy of eating a delicious burger.

1. The writer's main purpose in writing this passage is to:
   A. demonstrate his love for hamburgers.
   B. explain why some food processing techniques will change in the future.
   C. perform a cost analysis of a food outbreak.
   D. demonstrate recent scientific advancements.
   E. predict popular foods in the twenty-first century.

2. Which of the following best defines the word "layman" as it is used in the passage?
   A. non-scientist
   B. expert
   C. private citizen
   D. clergyman
   E. carpenter
3. This passage is most likely taken from:
   A. a scientific journal
   B. a cookbook
   C. an economics textbook
   D. a newspaper column
   E. a legal journal

4. Which of the following best describes the author’s attitude toward the new food processing techniques?
   A. amazed
   B. concerned
   C. angry
   D. frustrated
   E. whimsical
Read the passage below. Then answer the three questions that follow.

High Definition Television, or HDTV, is finally available to consumers, approximately ten years after most companies promised the systems. Consumers love the new system. More than 10,000 people appeared at a local store on the first day that HDTV became available. The appeal of HDTV is the clearer picture that an HDTV signal produces. The signal holds approximately three times as many horizontal and vertical lines as a standard television, resulting in a picture that rivals movie screens. Further, HDTVs are quite large—current versions range from 56 inches to a 64 inch wide screen unit.

Despite these benefits, consumers who purchase these sets now may be disappointed with the results. There are very few digitally produced programs on television, and the number of these programs is unlikely to increase in the near future. The major networks plan to offer only five hours of digital programming per week next year, and only in the top-ten major markets. It will not be until 2004 that more than 50 percent of network television is broadcast in digital form. Further, cable companies are not under any regulation to switch to carrying digital programming. Since two-thirds of Americans receive their television through cable, the delay may be even longer.

5. The main point of the passage is that:
   A. Current HDTV sets are much larger than most standard televisions.
   B. The arrival of HDTV is much later than expected.
   C. The cable television industry is thriving.
   D. HDTV provides a clearer resolution picture.
   E. HDTV is available, although there is little programming that utilizes HDTV technology.

6. Which of the following would be the best title for the passage?
   A. HDTV Is Here to Stay
   B. Network and Cable Broadcasting
   C. HDTVs Are Here—Is the Programming?
   D. Television in 2004
   E. Why I Love HDTV

7. Which of the following best describes the word “major” in the ninth sentence as it is used in the passage.
   A. officer
   B. large
   C. subject
   D. legal
   E. important
Read the passage below. Then answer the question that follows.

Whenever a major train accident occurs, there is a dramatic increase in the number of train mishaps reported in the media, a phenomenon that may last for as long as a few months after the accident. Railroad officials assert that the publicity given to the horror of major train accidents focuses media attention on the train industry, and that the increase in the number of reported accidents is caused by an increase in the number of news sources covering train accidents, not by an increase in the number of accidents.

8. Which of the following, if true, would seriously weaken the assertions of the train officials?

A. The publicity surrounding train accidents is largely limited to the country in which the crash occurred.
B. Train accidents tend to occur far more often during certain peak travel months.
C. News organizations have no guidelines to help them determine how severe an accident must be for it to receive coverage.
D. Accidents receive coverage by news sources only when the news sources find it advantageous to do so.
E. Studies by regulators show that the number of train accidents remains relatively constant from month to month.
Read the passage below. Then answer the four questions that follow.

In Roman times, defeated enemies were generally put to death as criminals for having offended the emperor of Rome. During the Middle Ages, however, the practice of ransoming, or returning prisoners in exchange for money, became common. Though some saw this custom as a step toward a more humane society, the primary reasons behind it were economic rather than humanitarian.

In those times, rulers had only a limited ability to raise taxes. They could neither force their subjects to fight, nor pay them to do so. The promise of material cooperation in the form of goods and ransom was therefore the only way of inducing combatants to participate in a war. In the Middle Ages, the predominant incentive for the individual soldier was the expectation of spoils. Although collecting ransom clearly brought financial gain, keeping a prisoner and arranging for his exchange had its costs. Consequently, procedures were devised to reduce transaction costs.

One such device was a rule asserting that the prisoner had to assess his own value. This compelled the prisoner to establish a value without too much distortion; indicating too low a value would increase the captive’s chances of being killed, while indicating too high a value would either ruin him financially or create a prohibitively expensive ransom that would also result in death.

9. The primary purpose of the passage is to:
   A. discuss the economic basis of the medieval practice of exchanging prisoners for ransom.
   B. examine the history of the treatment of prisoners of war.
   C. emphasize the importance of a warrior’s code of honor during the Middle Ages.
   D. explore a way of reducing the costs of ransom.
   E. demonstrate why warriors of the Middle Ages looked forward to battles.

10. From the passage, it can be assumed that a medieval soldier:
   A. was less likely to kill captured members of opposing armies than was a soldier of the Roman Empire.
   B. was similar to a twentieth-century terrorist.
   C. had few economic options and chose to fight because it was the only way to earn an adequate living.
   D. was motivated to spare prisoners’ lives by humanitarian rather than economic ideals.
   E. had no respect for his captured enemies.
11. Which of the following best describes the change in policy from executing prisoners in Roman times to ransoming prisoners in the Middle Ages?

A. Roman emperors demanded more respect than medieval rulers, and thus Roman subjects went to greater lengths to defend their nation.

B. It was a reflection of the lesser degree of direct control medieval rulers had over their subjects.

C. It became a show of strength and honor for warriors of the Middle Ages to be able to capture and return their enemies.

D. Medieval soldiers were not as humanitarian as their ransoming practices might have indicated.

E. Medieval soldiers demonstrated more concern about economic policy than did their Roman counterparts.

12. The author uses the phrase “without too much distortion” in the final paragraph in order to:

A. indicate that prisoners would fairly assess their worth.

B. emphasize the important role medieval prisoners played in determining whether they should be ransomed.

C. explain how prisoners often paid more than an appropriate ransom in order to increase their chances for survival.

D. suggest that captors and captives often had relationships.

E. show that when in prison a soldier’s view could become distorted.
In recent years, Americans have gotten the message—eat more vegetables! However, we’re still not eating enough of the leafy green vegetables, such as spinach, broccoli, and Brussels sprouts that do the most to promote good health. Currently, half of all the vegetable servings we consume are potatoes, and half of those are French fries.

Research reported at the Nurses Health Study confirms the benefits of leafy greens. Researchers determined that women who daily consumed at least 400 micrograms of folic acid in either leafy green vegetables or multivitamin pills reduced their risk of colon cancer as much as 75 percent over fifteen years. Remember not to simply substitute vitamins for vegetables, because there are thousands of healthy compounds present in vegetables that cannot be duplicated in a pill.

13. The main point of the passage is:
   A. Multivitamin pills contain folic acid, as do leafy green vegetables.
   B. Recent studies help confirm that leafy green vegetables help to promote good health.
   C. Eating more vegetables can reduce the risk of colon cancer.
   D. Important research was just presented at the Nurses Health Study.
   E. Almost half of the vegetables consumed by Americans are potatoes.

14. The author argues that vitamins may not be an ideal replacement for leafy vegetables because:
   A. Increasing dependence on multivitamins can lead to poor nutritional habits.
   B. Multivitamins are not proven to fight against colon cancer.
   C. Folic acid is not contained in multivitamins.
   D. A vitamin supplement may not replace the thousands of compounds found in leafy green vegetables.
   E. Caloric intake may decrease sharply.

15. The passage states that leafy green vegetables are helpful because:
   A. They help to reduce the risk of contracting colon cancer, but little more.
   B. They contain more compounds than potatoes.
   C. They contain folic acid.
   D. They contain numerous compounds that are helpful to the body, such as folic acid.
   E. Multivitamins are not very helpful.

16. Which of the following changes would the author most likely wish to see in the way Americans consume vegetables?
   A. a lower overall consumption in vegetables
   B. an increase in the number of potatoes consumed
   C. an overall increase in the number of leafy green vegetables consumed
   D. a switch from leafy green vegetables to carrots
   E. more spinach and fewer Brussels sprouts
Read the passage below. Then answer the five questions that follow.

One of the most attractive features of the Internet, its ability to customize content instantly, is ironically becoming one of its most sinister: the ability to monitor who you are and what you are doing. Websites now have the ability to track what sites you visit, how long you visit them, and what you download, print, or purchase. Sites are equipped with programs called cookies that can track this information and use it for marketing purposes. If you visit a sports website, don’t be surprised if you find unsolicited emails about sporting events and merchandise in your inbox.

Worst of all, most sites are not forthright about informing visitors about what data they are collecting. A recent study by the FTC found that only 14 percent of sites had posted privacy statements. Fortunately, 71 of the 100 busiest sites did. Of the 100 busiest sites, 91 had customer service centers designed to handle questions about privacy issues. Computer industry leaders are attempting to address these privacy concerns. Browsers are being created that will enable you to delete all cookies at any website you visit. Other entrepreneurs are developing software to help you control the information you give out. After all, if anyone is going to make money from your identity, shouldn’t it be you?

17. “Cookies” are described in the passage as:
   A. traditional desserts.
   B. jargon for company private policy statements.
   C. tools that allow a computer user to see what sites request personal information.
   D. unsolicited emails.
   E. tracking devices that follow what you do on the Internet.

18. What is the best title for the passage above?
   A. Privacy Concerns on the Internet
   B. The Cookie Crumbles
   C. The Lack of Posted Privacy Statements
   D. Entrepreneurs and the Internet
   E. Profiting from your Identity

19. From the statistics presented in the passage about the number of businesses posting privacy statements it can be assumed that:
   A. Only large sites are concerned privacy statements.
   B. Only large sites attempted to sell personal information about users who visit their sites.
   C. Small sites do not feel it is important to post privacy statements.
   D. Most of the largest sites are able to provide information about their privacy policies.
   E. Large sites without privacy statements will decrease in popularity.
20. Which of the following would the author most likely support as a solution to privacy concerns on the Internet?

A. a list of all sites that use cookies
B. the ability to request that sites not use your name or profile for marketing purposes
C. the ability to choose which sites you want to provide information to, and which sites you do not
D. a list of all sites that have posted their privacy statements
E. a government law that ends every form of advertising on the Internet

21. The word “sinister” in the first paragraph is used to mean:

A. poisonous.
B. threatening.
C. corrupt.
D. unlucky.
E. obnoxious.
Read the passage below. Then answer the three questions that follow.

Recent findings from paleontologists have sparked great debate about the possibility of birds evolving from dinosaurs. Two new species of small dinosaur have been found, each of which was clearly covered with feathers. This has led many in the scientific community to believe the increasingly popular theory that birds are descended directly from dinosaurs.

Some have suggested that even the mighty velociraptor may have been covered with its own feathers. If the dinosaur–bird connection was convincing before, it is now almost certain. With any new discovery come skeptics, and this recent finding is no exception. Even these startling discoveries do not impress some scientists. These scientists contend that both birds and dinosaurs evolved from the same older common ancestor. They assert that any similarities between birds and dinosaurs are due to the common parentage, not due to a direct evolutionary relationship.

22. What is the best summary of the passage?  
A. Whenever a new anthropological study is done, it will be subject to controversy and debate.  
B. The velociraptor was covered with feathers.  
C. New evidence lends greater weight to the theory that birds are descended from dinosaurs.  
D. Critics of recent studies contend common parentage links birds and dinosaurs.  
E. Evolutionary relationships are difficult to define with certainty.

23. What is the author’s attitude toward the belief that birds are descended directly from dinosaurs?  
A. skeptical support  
B. unwavering conviction  
C. indifference  
D. confident support  
E. utter disbelief

24. Which of the following is the best definition for the author’s use of the word “sparked” in the first paragraph?  
A. started  
B. glittered  
C. ended  
D. ignited  
E. burned
Analyze the index below. Then answer the two questions that follow.

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25. On what pages would you look to find information on Macbeth, which critics call “Shakespeare’s best written tragedy”?

A. 203–207  
B. 197–198  
C. 189 and 193  
D. 211–213  
E. 208–211

26. Which of the following best describes the organizational pattern used in the section of the book dealing with Shakespeare?

A. chronological  
B. alphabetical  
C. by category  
D. by literary importance  
E. from least influential to most influential
Read the passage below. Then answer the three questions that follow.

Despite years of publicity about the problem, the percentage of college students who binge drink, that is, consume five or more drinks in one sitting, has declined only from 44 percent to 43 percent. Further, half of all students who binge drink do so regularly—at least three times within a two-week period. Finally, 33 percent more students admit that they drink just to get drunk. Dangerous drinking is at its worst in fraternities and sororities, where four out of five members acknowledge that they binge.

Public pressure has shown some previous influence regarding students’ drinking habits. A University of Michigan researcher says the percentage of drinkers who binged dropped through the late 1980s and early 1990s, largely because of the widespread publicity about the dangers of drunken driving. _______________________

27. Which of the following sentences best summarizes the overall message of the passage?

A. According to statistics, binge drinking is on the decline.

B. Dangerous drinking remains high on college campuses despite efforts to curb such behavior.

C. Fraternity and sorority binge drinking is most problematic.

D. Too many students drink just to get drunk.

E. Efforts to curb drunk driving seem to be more successful than efforts to curb binge drinking.

28. Which of the following sentences, if inserted into the blank, would best complete the passage?

A. Currently, there seems to be no way of stopping binge drinking.

B. Schools should consider using the same messages used in the 1980s in order to curb binge drinking.

C. Those messages are unfortunately not being given to college students today.

D. University officials should evaluate how to use public pressure more effectively to help curb the current binge-drinking problem.

E. If schools first reduce the number of fraternity students who binge drink, the rest of the campus will follow.
29. Which of the following statements, if true, would weaken the claim that publicity efforts helped to curb binge drinking in the late 1980s?

A. Drunk driving convictions decreased 12% over that time period.

B. Students did not watch as much television as other groups, decreasing the number of times they heard those ads.

C. New state laws for drunk driving became much more severe—one conviction went from a suspended license to three years in jail.

D. Binge drinking was listed as a “favorite activity” by many college students.

E. Membership in a designated drivers program at Michigan increased by 500 percent during the late 1980s.
Read the passage below. Then answer the question that follows.

Zinc lozenges have gained great popularity among adults as a means to reduce the duration and severity of colds. Unfortunately, the lozenges do not work for children. Even if they knew and could alter the medicine, children may not be too excited about taking them. Children complain about the taste of the lozenges; many children vomit if taking one on an empty stomach.

30. Which of the following sentences would best complete the passage when inserted into the blank above?

A. Scientists are unable to explain why the lozenges do not work for children.

B. Nonetheless, children should take them.

C. Be careful of products that promote zinc lozenges for children.

D. New lozenges are currently being tested for animals.

E. The severity of children’s colds should be monitored closely.
Read the passage below. Then answer the five questions that follow.

The United States is currently home to an unprecedented 4,000 nonnative plant species and 2,300 alien animal species. These plants and animals arrive by air and by sea from other continents, often in the bilge water of tankers and as stowaways on aircrafts. Previously, very little was done to stop this transport of alien plants and animals. But now, aliens are so out of control that they are threatening the very existence of America’s native species. Of the 1,900 imperiled American species, 49 percent are being endangered by aliens. Aliens are currently the leading threat to species populations, next to habitat destruction. In some locations, the influence of aliens is already as bad as it can be. In Hawaii, more than 95 percent of the 282 imperiled plants and birds are threatened by aliens.

In general, a plant or animal is kept in check by species that compete with it, eat it, or sicken it. On new grounds, though, aliens often have no such constraints. Many foreign creatures have flourished in delicate ecosystems. Our environment cannot quickly adapt to a new plant species.

A crucial preventative measure is to outlaw the release of ballast water in ports. Some ports, like the port in San Francisco Bay, are populated by almost 99 percent alien species. Yet, limiting the inclusion of alien species will not be easy. Many new species enter undetected. Further, some alien species provide great help to our environment. America’s economy thrives on many of our immigrants—soybeans, wheat, cotton, rye, and fruiting trees all originated on other continents and were brought over by colonists. Without any data or observations, it is difficult to predict if an alien species will be beneficial or harmful to our environment.

31. Which of the following is the best summary of the passage?

A. The United States is home to over 6,000 alien plant and animal species.
B. Alien species provide a number of problems to our ecosystems, which do not have easy solutions.
C. Alien animals and plants can help our environment.
D. Certain parts of the United States are upset at the number of alien plants species and animals in our environment.
E. It is difficult to predict the effects of an alien species in our environment.

32. The author specifically mentions the state of Hawaii in the passage because it has:

A. benefited the most from alien species.
B. been greatly hurt by alien species.
C. been largely unharmed by alien plants or animals.
D. new laws outlining the entry of alien species.
E. a port which contains 99 percent alien species.
33. Why does the author suggest outlawing the release of ballast water in ports?

A. Ballast water pollutes the ocean.
B. Ballast filters are costly to port operators.
C. Alien species often enter our environment through ballast water.
D. The San Francisco port does not want any more alien species.
E. Alien species do more harm in the water than on land.

34. Why do scientists fear aliens entering our ecosystems?

A. Alien species will always harm our ecosystem.
B. Alien species have the potential to disrupt our ecosystems, endangering species unique to our country.
C. The cost of damage done by aliens is in the billions of dollars per year.
D. Our ecosystems would always work better without alien species.
E. Alien species multiply much faster in new environments.

35. What would be an appropriate title for the previous passage?

A. Hawaii’s Ecological Trouble
B. Bad Ballast Water!
C. Aliens—Changing Our Ecosystems
D. Ecosystems in Trouble
E. Solutions to Alien Invasions
Mounting evidence suggests that any musical stimulus, from Beethoven to the Spice Girls, can have therapeutic effects. Whether you’ve had heart surgery or a bad day at the office, some soothing sounds may help to lessen stress and promote well-being. Music therapy isn’t mainstream health care, but recent studies suggest it can have a wide range of benefits. Most studies have been done with patients recovering from various illnesses, such as a stroke and Parkinson’s disease.

No one really knows how music helps the body. We do know that listening to music can directly influence pulse, the electrical activity of muscles, and lower blood pressure. Neuroscientists suspect that music can actually help build and strengthen connections among nerve cells. This is probably why listening to Mozart before an IQ test boosts scores by roughly nine points.

36. Which of the following is NOT mentioned as a benefit to listening to music?
A. relieved stress
B. increased neural activity
C. faster recovery
D. increased coordination
E. lower blood pressure

38. The author’s use of the word “mainstream” in the first paragraph means:
A. conventional
B. radical
C. musical
D. medicinal
E. experimental

37. Which of the following best summarizes the content of the passage?
A. Music therapy has become so widely accepted, many health care organizations are adding music therapy sessions to their insurance policies.
B. A detailed analysis on how music helps the body.
C. Neuroscientists are tracking the neurological effects of music on the body.
D. Evidence suggests that music therapy helps the body, even if we aren’t sure exactly how.
E. Students can perform better on standardized exams if they listen to more classical music.
Read the passage below. Then answer the three questions that follow.

Insulin is a critical hormone that allows individuals to absorb simple sugars (like glucose and fructose) from their food as it is digested. Most individuals produce the right amount of insulin. In fact, most individuals are not aware of the presence of insulin in the bloodstream.

Recently, nutritionists have discovered that foods known as complex carbohydrates—potatoes, carrots, and pasta among them—break down into simple sugars. Sometimes, this breakdown into sugars occurs so rapidly that the sugars may trigger a strong insulin response. This can be a problem, since a high level of insulin will inhibit the breakdown of fatty deposits. Therefore, eating too many carbohydrates leads to too much insulin, which in turn promotes the accumulation of fat. If you want to watch your weight, be sure to watch the number of complex carbohydrates you consume.

39. Which of the following statements, if true, would weaken the argument in the author's last sentence?

A. Certain foods, like whole grains and cereals, can counteract the tendency of other complex carbohydrates to raise insulin levels.
B. Weight gain can be countered by more exercise.
C. Stress is also a factor in the body’s ability to break down fatty deposits.
D. Complex carbohydrates like carrots do not contain many calories.
E. A combination of proper diet and sleep can decrease insulin levels in the body.

41. According to the passage, high levels of insulin may promote weight gain by:

A. decreasing the heart rate.
B. inhibiting the ability to break down fatty deposits.
C. diminishing the health benefit of foods like carrots and pasta.
D. combining with complex carbohydrates, which then become difficult to break down.
E. slowing the transport of nutrients in the bloodstream.

40. What is the best definition for the author’s use of the word “trigger” in the second paragraph?

A. encourage
B. decrease
C. inspire
D. influence
E. stimulate
Read the passage below. Then answer the four questions that follow.

The koala is one of the most misunderstood animals. Although it is sometimes called a koala bear, or Australian bear, and is somewhat bear-like in appearance, it is not related to true bears. Once abundant, it is now found in much-reduced numbers in Queensland, Victoria, and New South Wales. It has thick, grayish fur, a tailless body 2 to 2 1/2 ft (60–75 cm) long; a protuberant, curved, black nose; and large, furry ears. The five sharply clawed toes on each foot enable it to grasp and climb. A slow-moving, nocturnal animal, the koala has perhaps the most specialized diet of any living mammal. It feeds on leaves and shoots of a particular species of eucalyptus at a specific stage of maturation. The single cub is about 3/4 in (1.9 cm) long at birth and is nursed in the mother’s pouch, from which it emerges for the first time at about six months old. Until it is approximately eight months old a koala continues to ride in the pouch, and until about one year of age it is carried on its mother’s back or in her arms. The harmless and defenseless koala has been ruthlessly hunted, chiefly for fur but also for food. Disease and the clearing of the eucalyptus forests have also taken a heavy toll. Protective measures have been adopted to prevent the extinction of the koala.

42. An appropriate title for this passage would be:
   A. Koalas Face Extinction
   B. Koala—It’s Not a Bear!
   C. The Unique Koala Diet
   D. Get to Know the Koala
   E. Victorian Koalas

43. The following passage would most likely be located in:
   A. a newspaper article.
   B. an editorial column.
   C. a scientific journal.
   D. a doctoral dissertation.
   E. an encyclopedia.

44. Which of the following is NOT one of the reasons the koala is facing extinction?
   A. It is hunted for fur.
   B. It is hunted for food.
   C. Many are isolated as pets, away from other koalas.
   D. Disease in their natural habitat.
   E. Destruction of their natural habitat.

45. Why does the author believe that the koalas are often linked to bears?
   A. Their diet is similar to those of true bears.
   B. Both true bears and koalas raise their young in a pouch.
   C. Both bears and koalas are facing extinction.
   D. Bears and koalas are both nocturnal.
   E. They are often referred to as koala bears or Australian bears.
Read the passage below. Then answer the three questions that follow.

One effect of a moist, warmer-than-usual spring is the increase in the number of ticks. Ticks, no larger than the size of a pinhead, are reason for concern since they can transmit Lyme disease. Lyme disease is spread by ticks that usually live on mice and deer. However, ticks can also attach themselves to other creatures, including people. If a tick bites someone, a large rash will usually appear at the site of the bite within a month. In addition, many will suffer from chills, fever, headache, and mild conditions of arthritis shortly after a rash appears. Untreated, Lyme disease can cause severe arthritis, and an irregular heartbeat.

Antibiotics used to be the only treatment for Lyme disease. Now, recent advances have led to the creation of a vaccine. In order for the vaccine to work, individuals must take three shots over a period of twelve months. Most individuals may find this treatment difficult to administer. A dose of tick-repellent should help the casual outdoor-bound individual avoid the danger of ticks.

46. According to the passage, what is the first sign of a tick bite on humans?
   A. an irregular heartbeat
   B. arthritis weather season.
   C. chills and fever
   D. headaches
   E. a large rash

47. Which of the following is the best definition for the word “treatment,” used in the second paragraph of the passage?
   A. management
   B. remedy
   C. execution
   D. strategy
   E. processing

48. According to the passage, the vaccine against Lyme disease is appropriate only for those who:
   A. plan on going outside during a warm
   B. occasionally spend time hiking and traveling outdoors.
   C. do not like the smell of tick repellent.
   D. live in the Northeastern United States.
   E. are outdoors so often that they must constantly protect themselves against ticks.
Analyze the table of contents below. Then answer the two questions that follow.

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49. On what page would you look to find information on how to create a mail merge document?
   
   A. 208  
   B. 212  
   C. 215  
   D. 216  
   E. 228

50. In what way is the table of contents arranged?
   
   A. alphabetically  
   B. by task  
   C. chronologically  
   D. by age  
   E. by level of expertise
SECTION II: TEST OF MATHEMATICS

Directions: Each of the questions in this test is followed by five suggested answers. Select the best answer in each case. Be sure to mark all of your answers in the Mathematics Section of your answer document.

1. Richard can write 2 test questions in 10 minutes. At this rate, how many questions can he write in 2 hours?
   A. 24
   B. 36
   C. 40
   D. 80
   E. 120

2. A delivery driver drove the following distances on Monday: \( 4 \frac{3}{4} \) miles, \( 5 \frac{1}{3} \) miles, 3 miles, \( 7 \frac{2}{3} \) miles, and \( 5 \frac{1}{4} \) miles. What was the average distance the driver drove, in miles, on Monday?
   A. 5
   B. \( 5 \frac{1}{5} \)
   C. 6
   D. \( 6 \frac{1}{5} \)
   E. 26
3. If \( n \) is the average of three numbers \( x, 12, \) and \( 15, \) what is the value of \( x \)?

A. \( \frac{n}{3} + 9 \)

B. \( 3(n - 9) \)

C. \( 3n + 9 \)

D. \( 3(n + 9) \)

E. \( n - 9 \)
Questions 4 and 5. Read the information below, then answer the questions that follow.

A vending machine contains 42 items. There are 13 candy bars, 14 bags of pretzels, and 15 packs of gum. After recess, there are 11 items remaining in the vending machine.

4. Which of the following facts can be determined from the information given above?

A. the number of candy bars sold
B. the cost of a bag of pretzels
C. the total capacity of the vending machine
D. the amount of money collected by the vending machine during recess
E. the number of items that were sold during recess

5. In order to calculate the total value of the items sold during recess, what additional information would be needed?

A. the cost of a bag of pretzels, the cost of a candy bar, and the cost of a pack of gum
B. the number of candy bars left in the vending machine after recess
C. the number of bags of pretzels left in the vending machine after recess
D. (A), (B), and (C)
E. it cannot be determined without more information
6. A dress that normally sells for $250 is on sale for $175. The sale price is approximately what percent of the original price?
   A. 70%
   B. 60%
   C. 50%
   D. 40%
   E. 30%

7. A bank charges a fee of $4.25 for every $100 that is used for cash advances. What was the amount used for cash advances if the total fee equaled $63.75?
   A. $15
   B. $150
   C. $1,150
   D. $1,500
   E. $1,555

8. Of the following, which is the largest in value?
   A. .02
   B. \( \frac{3}{14} \)
   C. \( 8 \frac{3}{4} \)
   D. .063
   E. \( \frac{3}{16} \)
Use the diagram below to answer the question that follows.

9. The spinner has an equal probability of landing on any number from 1-6. If you spin the spinner two times, what is the probability that the sum of the two numbers will equal 7?

A. $\frac{1}{12}$
B. $\frac{1}{6}$
C. $\frac{1}{4}$
D. $\frac{1}{3}$
E. $\frac{1}{2}$
10. Consider these two statements:

Some dolls have brown hair.
All dolls with black hair have a red bow.

Which of the following statements must also be true?

A. There are no dolls with red hair.
B. No dolls with brown hair have a red bow.
C. Some dolls with red bows have brown hair.
D. Not all dolls have black hair.
E. Not all dolls have red bows.

11. Pam needs to order ribbon to decorate her gifts. Each gift requires 31 inches of ribbon. If she has 22 gifts, what is the total length of ribbon that Pam needs to order?

A. 10 feet, 6 inches
B. 31 feet
C. 56 feet, 10 inches
D. 62 feet, 4 inches
E. 682 feet

12. The length of a rectangle is \(4l\) and the width is \(7w\). Which of the following expressions represents the perimeter of the rectangle?

A. \(22lw\)
B. \(28lw\)
C. \(11lw\)
D. \(4l + 7w\)
E. \(8l + 14w\)
13. Julie can grade 20 spelling tests per hour. If she starts grading tests at 9:00 A.M., which of the following is the best estimate as to when she will be finished grading 134 tests?

   A. 12:30 P.M.
   B. 1:30 P.M.
   C. 2:00 P.M.
   D. 3:30 P.M.
   E. 5:00 P.M.

14. 3 less than 8 times a number is 37. What is the number?

   A. 34
   B. 29
   C. 21
   D. 5
   E. 4

15. \(\frac{1}{2}\) is how many times greater than \(\frac{1}{4}\)?

   A. \(\frac{1}{2}\)
   B. 2
   C. 4
   D. 6
   E. 8
16. At a certain company, 65% of employees work in the sales department. If the company has 5,020 employees, how many employees do not work in the sales department?

A. 3,765
B. 3,263
C. 2,761
D. 1,757
E. 1,255

17. Anne, Sue, and Jen want to go to the amusement park together. They agree to combine their money. Anne has $11.00, Sue has $15.00, and Jen has $16.00. Admission is $21 per person. How much more money will they each need to obtain, on average, in order for everyone to be able to go to the amusement park?

A. $5.00
B. $6.00
C. $7.00
D. $10.00
E. $14.00

18. Which of the following expressions is not equivalent to $6 \times 52$?

A. $6 + (26 \times 2)$
B. $12 \times 26$
C. $6 \times (40 + 12)$
D. $24 \times 13$
E. $(2 \times 3) \times (13 \times 4)$
19. The school library moved some of its books from the first floor to the second
floor. If the school originally had 1,035,726 books on the first floor, and if after
the move there are 924,192 books on the first floor, approximately how many
books were moved to the second floor?

A. 100,000 books

B. 75,000 books

C. 10,000 books

D. 7,500 books

E. 1,000 books

20. Jessica’s monthly rent is $50 more than \( \frac{1}{2} \) of Michael’s monthly rent.

If Jessica’s monthly rent is $640, what is Michael’s monthly rent?

If \( r \) represents Michael’s monthly rent, which of the following equations can be
used to solve the preceding problem?

A. \( $640 - 50 = \left( \frac{1}{2} \right) r \)

B. \( $640 = 50 + \left( \frac{1}{2} \right) r \)

C. \( 2(640) = 50 + r \)

D. \( \left( \frac{1}{2} \right) 640 = r - 50 \)

E. \( 640 = 25r \)
Questions 21 and 22: Use the chart below to answer the questions that follow.

Population of Town C

21. What percent of the total population of Town C is made up of teenagers?
   A. 12%
   B. 14%
   C. 17%
   D. 19%
   E. 20%

22. If there are 125,000 people in Town C, how many people are between the ages of 20 and 50, inclusive?
   A. 25,000
   B. 33,575
   C. 50,000
   D. 75,000
   E. 82,500
23. The sum of 3.468 and 7.397, when rounded to the nearest tenth, is:

A. 11
B. 10.9
C. 10.8
D. 10.0
E. 3.6

24. If a cafe purchases eggs for $2 per dozen and sells a three-egg omelet for $4, what is the cafe’s profit on 4 dozen of these omelets?

A. $24
B. $64
C. $144
D. $168
E. $192
Questions 25 and 26. Use the table below to answer the questions that follow.

<table>
<thead>
<tr>
<th>Population of State X</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
</tr>
<tr>
<td>Town A</td>
</tr>
<tr>
<td>Town B</td>
</tr>
<tr>
<td>Town C</td>
</tr>
<tr>
<td>Town D</td>
</tr>
<tr>
<td>Town E</td>
</tr>
</tbody>
</table>

25. Which Town saw the largest percent increase in population from 1996 to 1997?

A. Town A  
B. Town B  
C. Town C  
D. Town D  
E. Town E

26. By approximately what percent did State X increase in population in 1997 from 1996?

A. 14%  
B. 25%  
C. 33%  
D. 45%  
E. 85%
27. Howard currently earns $6.00 per hour and works 12 hours per week. If Howard wants to raise his weekly gross pay to $114.00 how many additional hours must he work per week?

A. 4 hours
B. 5 hours
C. 6 hours
D. 7 hours
E. 8 hours

28. Paula-Ann needs to ship two packages. The first package weighs $16\frac{1}{4}$ pounds, and the second package weighs $23\frac{3}{8}$ pounds. What is the total weight of the packages that Paula-Ann needs to ship?

A. $7\frac{1}{8}$ pounds
B. $38\frac{8}{9}$ pounds
C. $39\frac{5}{8}$ pounds
D. 40 pounds
E. $40\frac{5}{8}$ pounds
29. Ben’s garden has a collection of roses, tulips, and carnations, in a ratio of 3:2:1. If Ben has a total of 72 flowers in his garden, how many roses are in his garden?

A. 6 roses
B. 12 roses
C. 24 roses
D. 28 roses
E. 36 roses

30. If the value of \( y \) is between .00268 and .0339, which of the following could be \( y \)?

A. .00175
B. .0134
C. .0389
D. .268
E. 2.6
Questions 31 and 32. Use the information below to answer the questions that follow.

- If the distance to a destination is greater than 15 miles from home, Bob will take the bus.
- If the distance to a destination is greater than 4 miles but less than 15 miles from home, Bob will ride his bicycle.
- If the distance to a destination is less than 4 miles from home, Bob will walk.

31. If Bob rode his bicycle to Kathleen’s apartment, which of the following statements could be true?

A. Bob’s home is 4 miles from Kathleen’s apartment.
B. Bob rode over 30 miles round trip to Kathleen’s apartment.
C. Kathleen’s apartment is at least 15 miles from Bob’s home.
D. Kathleen’s apartment is within 2 miles from Bob’s home.
E. Kathleen’s apartment is 11 miles from Bob’s home.

32. Using the information above, which of the following facts could be determined?

A. the total number of miles Bob rode on his bike on Tuesday
B. the total number of miles Bob walked on Tuesday
C. the method of transportation Bob used to get to a destination 20 miles away
D. the number of miles from Bob’s home to any destination
E. Bob’s speed on a bicycle
33. \[3x + 12 = 7x - 16.\] What is \(x\)?

A. 3  
B. 7  
C. 12  
D. 16  
E. 28

34. Tommy rides his bicycle at a constant rate of 12 miles per hour. How many days will it take him to ride 360 miles?

A. 1.25 days  
B. 1.5 days  
C. 1.75 days  
D. 2.25 days  
E. 2.75 days

35. Multiplying a number by \(\frac{1}{2}\) is the same as dividing that number by

A. \(\frac{1}{2}\)  
B. \(\frac{1}{4}\)  
C. 1  
D. 2  
E. 4
36. Marge has a jar of coins (quarters, dimes, nickels, and/or pennies) totaling $24.70. What is the largest number of quarters that Marge could have in her jar?

A. 247  
B. 118  
C. 98  
D. 49  
E. 24

37. If $3z + 6 = 16$, what is the value of $9z$?

A. $\frac{10}{3}$  
B. 10  
C. 20  
D. 22  
E. 30
Use the information below to answer the question that follows.

Priya was asked to evaluate the expression \((3x + 2)(x + 5)\). Although she was given the value of \(-5\) for \(x\), she was unsure of her answer.

38. If Priya evaluated the expression correctly, what answer should she have given?
   
   A. \(-13\)
   B. 0
   C. 75
   D. 325
   E. 425

39. What is the value of 623,499 rounded to the nearest thousand?
   
   A. 600,000
   B. 620,000
   C. 623,000
   D. 623,500
   E. 624,000
40. Lara is scheduled to perform 24 surgeries this week. If she performs four surgeries on Monday, how many must she perform each day, on average, to finish by Friday?

A. 2  
B. 3  
C. 4  
D. 5  
E. 6

41. How long would it take a jogger averaging 6 miles per hour to reach her destination 5 miles away?

A. 30 minutes  
B. 40 minutes  
C. 50 minutes  
D. 60 minutes  
E. 70 minutes
42. Steve has a jar of coins containing 23 quarters, 15 nickels, 36 dimes, and 42 pennies. Steve removes one quarter from the jar and spends it. What is the probability that the next coin Steve takes from the jar will be a nickel or a dime?

A. \( \frac{5}{12} \)
B. \( \frac{51}{16} \)
C. \( \frac{10}{23} \)
D. \( \frac{64}{115} \)
E. \( \frac{51}{115} \)

43. A website recorded the average temperatures in Springfield for six consecutive weeks. What is the difference between the highest and lowest temperatures recorded during these six weeks?

<table>
<thead>
<tr>
<th>Week 1</th>
<th>–2°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 2</td>
<td>17°</td>
</tr>
<tr>
<td>Week 3</td>
<td>4°</td>
</tr>
<tr>
<td>Week 4</td>
<td>–11°</td>
</tr>
<tr>
<td>Week 5</td>
<td>9°</td>
</tr>
<tr>
<td>Week 6</td>
<td>22°</td>
</tr>
</tbody>
</table>

A. –9
B. –13
C. 33
D. 36
E. 39
44. Mitch makes $2,000 each month. His bills for the month are: $600.00, $250.00, $200.00, $180.00, $140.00, $120.00, and $86.00. If there are four weeks in a month, how much money does Mitch have left each week?

A. $106.00
B. $242.00
C. $318.00
D. $424.00
E. $500.00

45. If $x$ is between –1 and 0, which of the following statements must be true?

I. $x^2 < 1$
II. $x^2 > 0$
III. $x^2 < x$

A. I only
B. II only
C. III only
D. I and II only
E. II and III only
Questions 46 and 47. Use the table below to answer the questions that follow.

<table>
<thead>
<tr>
<th>List of Television Shows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television Show</td>
</tr>
<tr>
<td>Show A</td>
</tr>
<tr>
<td>Show B</td>
</tr>
<tr>
<td>Show C</td>
</tr>
<tr>
<td>Show D</td>
</tr>
<tr>
<td>Show E</td>
</tr>
</tbody>
</table>

46. If Show A is 20 minutes longer than Show C, what time does Show A end?
   A. 9:50
   B. 10:10
   C. 10:20
   D. 10:30
   E. 11:40

47. If Show E is the longest of all five shows, what is one possible start time for Show E?
   A. 2:20
   B. 2:10
   C. 2:00
   D. 1:45
   E. 1:40
48. In Allison’s class, there are 23 more boys than girls. If there are a total of 81 students in the class, how many girls are in the class?

A. 23
B. 29
C. 40
D. 52
E. 58

49. Consider this statement:

Every student in Julie’s class likes to play chess.

Which of the following statements must also be true?

A. No one in Julie’s class likes to play checkers.
B. Everyone that likes to play chess is in Julie’s class.
C. Some students in Julie’s class don’t like to play chess.
D. If a student does not like chess, the student is not in Julie’s class.
E. Only students in Julie’s class like chess.

50. Given the formula \( F = \frac{9}{5}C + 32 \), where \( F \) = Fahrenheit temperature and \( C \) = Celsius temperature, which of the following is closest to the temperature in Celsius degrees when the temperature is 95º Fahrenheit?

A. 203º
B. 113º
C. 71º
D. 35º
E. 20º
SECTION III: TEST OF WRITING

Directions: The Writing Section consists of two essay topics. Be sure to write about the assigned topics. Essays on topics of your own choice will not be acceptable. Your written responses should be your original work, written in your own words, and should not be copied or paraphrased from some other work. Since both topics are weighed equally in scoring, you should plan to spend about the same amount of time on each topic.

The essay topics in this test are designed to give you an opportunity to demonstrate your ability to write effectively. Spend some time considering each topic and organizing your thoughts before you begin writing. For each essay, be sure to address all parts of the topic; to support generalizations with specific examples; and to use multiple paragraphs.

You may use any blank space provided in this test booklet to make notes or to prepare a rough draft for each essay. However, your score will be based solely on the versions of your essays written in the space provided in your answer document. Please write as neatly and legibly as possible. To ensure that you have enough space for your entire essay, please do NOT skip lines; do NOT write in excessively large letters; and do NOT leave wide margins.

Topic 1

A local public school system is considering a plan to convert Jefferson High into an all-male school, and Franklin High into an all-female school. Students in the district would be required to attend a same-sex school. Many in the school system think that all-male and all-female high schools would benefit students, and provide a more educational atmosphere. To what extent do you agree or disagree with the supporters?

Support your opinion with specific reasons.

Topic 2

All of us have at some point in our lives had someone whom we’ve admired, someone we’ve looked up to. Write about your hero. Identify who the person is, and why he or she is your hero. What qualities does he or she possess that you admire? What have you learned from your hero that has influenced who you are today?
**Section I—Reading**

1. A  B  C  D  E
2. A  B  C  D  E
3. A  B  C  D  E
4. A  B  C  D  E
5. A  B  C  D  E
6. A  B  C  D  E
7. A  B  C  D  E
8. A  B  C  D  E
9. A  B  C  D  E
10. A  B  C  D  E
11. A  B  C  D  E
12. A  B  C  D  E
13. A  B  C  D  E
14. A  B  C  D  E
15. A  B  C  D  E
16. A  B  C  D  E
17. A  B  C  D  E
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26. A  B  C  D  E
27. A  B  C  D  E
28. A  B  C  D  E
29. A  B  C  D  E
30. A  B  C  D  E
31. A  B  C  D  E
32. A  B  C  D  E
33. A  B  C  D  E
34. A  B  C  D  E
35. A  B  C  D  E
36. A  B  C  D  E
37. A  B  C  D  E
38. A  B  C  D  E
39. A  B  C  D  E
40. A  B  C  D  E
41. A  B  C  D  E
42. A  B  C  D  E
43. A  B  C  D  E
44. A  B  C  D  E
45. A  B  C  D  E
46. A  B  C  D  E
47. A  B  C  D  E
48. A  B  C  D  E
49. A  B  C  D  E
50. A  B  C  D  E

**Section II—Mathematics**

1. A  B  C  D  E
2. A  B  C  D  E
3. A  B  C  D  E
4. A  B  C  D  E
5. A  B  C  D  E
6. A  B  C  D  E
7. A  B  C  D  E
8. A  B  C  D  E
9. A  B  C  D  E
10. A  B  C  D  E
11. A  B  C  D  E
12. A  B  C  D  E
13. A  B  C  D  E
14. A  B  C  D  E
15. A  B  C  D  E
16. A  B  C  D  E
17. A  B  C  D  E
18. A  B  C  D  E
19. A  B  C  D  E
20. A  B  C  D  E
21. A  B  C  D  E
22. A  B  C  D  E
23. A  B  C  D  E
24. A  B  C  D  E
25. A  B  C  D  E
26. A  B  C  D  E
27. A  B  C  D  E
28. A  B  C  D  E
29. A  B  C  D  E
30. A  B  C  D  E
31. A  B  C  D  E
32. A  B  C  D  E
33. A  B  C  D  E
34. A  B  C  D  E
35. A  B  C  D  E
36. A  B  C  D  E
37. A  B  C  D  E
38. A  B  C  D  E
39. A  B  C  D  E
40. A  B  C  D  E
41. A  B  C  D  E
42. A  B  C  D  E
43. A  B  C  D  E
44. A  B  C  D  E
45. A  B  C  D  E
46. A  B  C  D  E
47. A  B  C  D  E
48. A  B  C  D  E
49. A  B  C  D  E
50. A  B  C  D  E