

Reading Comprehension

The passages on the actual DAT will be somewhat longer than those presented in this book, in order to help you practice in a more controlled way. We've presented passages here with multiple-choice questions following each passage. The answers to these passages appear at the end of each set of questions in order for you to develop an understanding of why the specific answer is correct.

Directions: Read each of the following passages and answer the questions that follow.

Passage 1

With the cloning of Dolly, the sheep, in 1997, speculators believed that such scientific breakthroughs would soon apply to cells in the human body. Soon afterwards, investigators reported isolating for the first time, human embryonic cells that have the potential to develop into muscle, blood, nerves or any other tissue cell in the human body. In fact, these types of cells are called totipotent because of their multiple possibilities. With these mother cells, scientists may someday create many sorts of tissues to treat conditions such as spinal cord injuries, diabetes, leukemia, and even the neurodegenerative disorders like Parkinson's disease.

To understand the development of human embryos and to generate tissue for transplantation, several research teams had searched for human embryonic stem cells with no success. They initially tried to separate human blastocysts, clusters of 100 or so cells that constitute a stage of embryonic development. When this didn't work, the scientists collected primordial germ cells, the cells that give rise to sperm and eggs. Grown under certain conditions, these cells come to resemble stem cells derived from blastocysts. These cells were kept alive for more than seven months. These cells are shaped like embryonic stem cells, carry several of the same surface proteins and make telomerase, an enzyme thought to keep stem cells virtually immortal. They can spontaneously form embryoid bodies, clusters of differentiated cells also formed by embryonic stem cells.

Debate continues over whether primordial germ cells are the equivalent of blastocyst-derived stem cells. As germ cells develop into sperm or eggs, some genes receive a sex-specific chemical imprint that governs their activity during development. This imprinting may compromise the use of such cells as stem cells. However, if efforts prove successful with human embryonic stem cells that generate blood stem cells, they could eliminate the use of bone marrow tissues or umbilical cord blood to treat blood disorders such as leukemia.

1. The reason for calling the cells *totipotent* is

- A. they come from all parts of the body such as muscles, blood, and nerves.
- B. they are very powerful in regenerating diseased tissue.
- C. they can be used directly to treat many conditions and injuries.
- D. they become the mother cells, which can create tissues that have many possibilities.

(D) (A) They do not come from different parts of the body, and although they can help regenerate tissue (B), that is not the reason for this name. (C) These cells are not directly used to treat anything.

2. Blastocysts are

- A. cells that were kept alive for over seven months.
- B. another name for primordial germ cells.
- C. cells at a certain beginning stage of development.
- D. any group of more than 100 cells.

(C) (A) The length of time being kept alive does not categorize these cells nor does the number (D). (B) Primordial germ cells are a different type. The blastocysts are in an "embryonic" stage of development; hence, they are the "beginning" stage of development.

3. Scientists became interested in primordial germ cells because

- A. they give rise to sperm and eggs.
- B. they can resemble blastocysts.
- C. they will live for a long time.
- D. it is easy to cultivate them.

(B) (A) It is irrelevant that they give rise to eggs and sperm; there is no textual evidence that they are easy to cultivate (D). There is no evidence that their living for seven months was the reason for interest (C).

4. The most important aspect of the germ cells is

- A. their shape.
- B. their size.
- C. the fact that they have proteins.
- D. the fact that they have enzymes.

(D) Although their shape and proteins are interesting in connection with the other cells (A, C), it is the production of enzyme telomerase that is significant. (B) There is nothing said about their size.

5. Germ cells and stem cells both

- A. form embryoid bodies.
- B. form clusters of differentiated cells.
- C. form spontaneously.
- D. all of the above.

(D) The last two sentences of the second paragraph contain all those facts.

6. The use of the word *compromise* in the last paragraph best means

- A. restrict.
- B. enhance.
- C. differentiate.
- D. compliment.

(A) To compromise something means to give up a little to get something. Hence, (B) enhance and (D) compliment are positive words. To differentiate (C) means to be able to see the differences in something. The imprinting of the chemical would limit the use of the cells.

7. The author's attitude about cloning can best be described as

- A. optimistic about future discoveries.
- B. skeptical about the application of this discovery.
- C. curious about the ethics of the discovery.
- D. cynical about testing on human cells.

(A) The last sentence indicates a positive feeling about this research. Therefore (B) and (D) are not appropriate. There is nothing mentioned about ethical concerns (C).

Passage 2

The old adage “Early to bed, early to rise, makes a man healthy, wealthy, and wise” may be more true than people think. Recent interest in the power and importance of sleep has revealed that a good night’s sleep “wakes up” your mind and increases your brain power. Scientists have discovered that sleep deprivation causes changes in the brain that are almost identical to those that occur naturally in people in their seventies and eighties. These changes, which are in the hardworking frontal part of the brain’s cortex, affect decision-making and the ability to absorb and adapt to new information. People who are affected tend to talk more in clichés and become more rigid in their thinking. A young intern in a hospital, after a long shift, could easily make a mistake if a patient comes in with unexpected symptoms that stretch and challenge his deductive powers.

Thus, it is important for employers to ensure that their staff does not work exhaustively long hours. Even a power nap in a workplace sleep zone could help in a crisis.

However, there is good news with this research for those worrying about the decline of brainpower. You don’t have to spend time reading extremely weighty books or doing crossword puzzles in order to keep your mental acumen. It is more important to bombard your mind with information that is interesting to you—whether it be sightseeing, going to art galleries, surfing the Net, or window-shopping. The latest studies show that other parts of the brain take over from the declining frontal cortex during sleep to reorganize the fresh information gathered during the day. New neural connections are forged during the first hours of sleep.

Thus, for most people, a good night’s sleep will restore their brains to full power.

- 8.** It can be inferred from this passage, that as one grows older, one’s brain
- A.** has more power to connect to ideas that have accumulated over time.
 - B.** takes more time to hear the information that is being given.
 - C.** places new information into very specific categories.
 - D.** allows one to think creatively.

(C) When they talk about the elderly speaking in clichés and being rigid in their thinking, this eliminates creativity (D). There is nothing mentioned about the ability to hear (B) or the relationship of new ideas to previous ones (A)

- 9.** A sleep-deprived intern might misdiagnose a patient’s condition because the intern
- A.** has fallen asleep.
 - B.** can’t remember details of the symptoms.
 - C.** can’t recognize and apply similar symptoms to ones in the medical textbook.
 - D.** is irritable and doesn’t want to take extra time to figure out challenging solutions.

(C) The passage indicates that deductive reasoning powers are affected. It doesn’t talk about irritability (D) or actually sleeping on the job (A), nor does it mention that the memory is affected (B).

- 10.** The best reason for employers to have places for employees to rest on break is that
- A.** even short naps can rejuvenate people.
 - B.** their snoring won’t annoy those who are working.
 - C.** the brain can only rest if the person is lying down.
 - D.** quiet places help lower a person’s heart rate.

(A) The last sentence of the first paragraph states the fact. (B), (C), and (D) are not even mentioned.

11. In the second paragraph, the term *mental acumen* most closely means

- A. memory.
- B. sharpness of intellect.
- C. good vocabulary.
- D. ability to do math problems.

(B) Acumen means mental sharpness and is not restricted to only math (D), vocabulary (C), or memory (A).

12. According to this passage, if you were a sports enthusiast, an effective way to maintain your mental acumen would be to

- A. read *Sports Illustrated*.
- B. read the *Wall Street Journal*.
- C. read *TV Guide*.
- D. do crossword puzzles.

(A) The passage directly states that acquiring knowledge about things that interest you is the best way to keep mentally sharp. Thus, a sports person would enjoy reading about sports in a magazine devoted to such.

13. Which of the following statements is NOT supported by the text?

- A. Other parts of the brain can take over the role of the front of the brain.
- B. The best sleep that you get is at the beginning of your cycle.
- C. Your frontal cortex is important to your daytime thinking.
- D. Once your brain is fatigued, those cells are never rejuvenated.

(D) (A), (B), and (C) are all found in the last paragraph. The last sentence of the passage is directly opposite of this statement (D).

14. The main idea of this passage is

- A. healthy brain function is dependent on your frontal cortex.
- B. active people have higher intelligence levels.
- C. rest is a medicinal activity.
- D. certain activities are better for your mental health than others.

(C) The word medicinal means acting like a remedy. The last sentence says that rest will restore people to full brain power much like a type of medicine. (A), (B), and (D) are not supported by the passage.

Passage 3

The Greeks believed that everything should be done in moderation. Thus, even exercise can be bad for your health. There is a pattern that is repeated every year after the holiday months of November and December. Overeating and excessive drinking during this period is followed by a nationwide fitness drive. Just examine the newspaper sales ads for all the diet and exercise aids. Slim-Fast and Atkins products are splashed across magazine pages with interim advertisements for those “ab-toners” and treadmills. However, health experts are warning people to avoid the trap of “binge exercising,” which can lead to injury and disillusionment.

Over-exercising can damage muscles and bones that may heal in a matter of weeks, but the damaged self-confidence may last for years. One of the most common injuries is stress fractures, which are extremely painful hairline breaks. Bones need to be strengthened gradually over time. Ones that are too weak to take the strain of new, repetitive exercise can split in as little as two or three weeks of a new exercise regimen. Furthermore, sporadic exercise of any type might increase levels of bad cholesterol. Studies have shown that although regular exercise protects the body by increasing the number of cholesterol-fighting molecules, short bursts of activity either had no effect or made it rise.

The recommendation for introducing a new exercise program suggests moderate exercise for 30 consecutive minutes five times a week. Moderate exercise, which leaves you slightly breathless but not in discomfort, includes brisk walking, cycling, and even gardening. Although gym membership is expensive, it can be a good investment because it offers exercise in a controlled way. You cannot change the effects of overindulgence in a day. The secrets of success are patience and realistic expectations.

15. The reference to *moderation* in the first sentence implies

- A. that it is not good to be the champion of anything.
- B. that people waste their talents by trying to succeed and then fail.
- C. that too much of even a good thing can be bad.
- D. that it is healthy to drink only a little at a time.

(C) The next sentence supports the idea that even good things in excess can be bad. The text does not talk about competition (A), talents (B), or the idea of drinking and its solutions (D).

16. The purpose of mentioning Slim-Fast and Atkins is

- A. to compare effective weight loss plans.
- B. to advertise for the companies.
- C. to suggest ways to lose weight in moderation.
- D. to give examples of the yearly cycle.

(D) The author uses the information to help support the idea that the sudden concern for exercise is cyclical. There is no attempt to fully examine any type of dieting (A, C), and it is obviously not selling a product (B).

17. *Binge exercising* means

- A. only exercising in random bursts of energy.
- B. eating and then exercising immediately afterward.
- C. exercising during the month of January.
- D. exercising once a week.

(A) There are no textual examples of exercising immediately after eating (B). A certain month for exercise is not advocated (C), and evidence of exercising on a regular basis is not bad (D).

18. A *stress fracture* is

- A. a very small, hardly noticeable break in a bone.
- B. an emotional breakdown.
- C. a cut near your scalp.
- D. a laceration to your skin.

(A) The definition directly follows the word.

19. Gym membership is advocated because

- A. it helps the economy.
- B. it gives you more choices of types of exercises.
- C. it encourages a controlled approach to exercise.
- D. it provides you with company while you exercise.

(C) The third to the last sentence in the last paragraph states this fact.

20. The author's attitude about exercise in this article can best be described as

- A. guarded because not all exercise is good.
- B. enthusiastic because exercise makes you fit and healthy.
- C. objective because the type of exercise that is best is up to the individual.
- D. cautionary because people need to diet along with exercise.

(A) The main idea of the passage is that not all exercise is good. Thus, there is skepticism. Guarded means having doubts.

Passage 4

The movie *Jurassic Park* is science-fiction. DNA from animals over 50,000 years ago cannot be reliably recovered. However through the power of the computer and virtual reality, researchers have demonstrated that computers can reconstruct with 98% accuracy the DNA of a creature that was a contemporary of the dinosaurs—a small, furry, nocturnal animal. Knowing the mammal’s complete genome—the sequence of As, Cs, Ts, and Gs in the DNA that made up its chromosomes—does not mean that scientists can bring the creature to life. It does mean, however, that this information can help scientists explore the evolution of human and other mammals at the molecular level. It can be called a kind of DNA-based archaeology of comparative genomics. Scientists believe that much more can be learned from this type of research than from the comparative studies of living species such as the mouse, the rat, or the chimpanzee. For instance, if a DNA sequence in the human genome is missing in the corresponding place in the mouse genome, it is uncertain whether that DNA was inserted in the evolution of humans from the mammalian ancestor or deleted in the evolution of mice. If an ancestral genome is available, the ambiguity disappears.

Based on a huge amount of data from research analysis of genomic sequences from any different vertebrate species, an artificial evolutionary tree was created with a massive software program. The software program was able to simulate mammalian evolution on the molecular level. This resulted in simulated modern DNA sequences for 20 different species. Then, the reconstruction procedure was used to create an ancestral sequence. This used no information from the simulated process. When the two were compared, there was a 98% accuracy. To do a complete reconstruction of the ancestral mammalian genome, there would have to be additional genome sequencing. However, if this were accomplished, there would be not only new insights into the core biology that all mammals share but also the unique traits that define each species.

21. The reference to *Jurassic Park* sets the tone

- A. that information about that period is highly speculative.
- B. that movies take liberties about scientific discoveries.
- C. that information about dinosaurs is very unreliable.
- D. that it is an important document about DNA retrieval.

(A) The phrase “highly unreliable” indicates that speculation is involved in determining information about dinosaurs. The passage is not focused on the quality of movies (B). The statement in the text says that the retrieval of DNA is unreliable (C, D).

22. Understanding and identifying an animal’s complete genome

- A. does not mean that the creature can be replicated under similar circumstances.
- B. means that you have the effective blueprints for re-creation of that creature.
- C. is the basis of determining nocturnal animals of prehistoric times.
- D. does not mean that you have the sequence of the chromosomes.

(A) Although the knowledge of the genome provides a kind of pattern for the re-creation, it isn’t necessarily possible to actually re-create it (B). The focus is not on only how to re-create nocturnal creatures (C). Chromosome are what make up the DNA (D).

23. The basic reason why scientists believe that computer-generated DNA archeology is better than comparative live species study is

- A. because computers can overcome human error.
- B. because missing elements could be contingent on an insertion of DNA in one species or the deletion of DNA in the other species along the evolutionary line.
- C. because even though there are similarities among rats, chimpanzees, and humans, they are not exactly alike.
- D. because computers are faster and more objective in their findings.

(B) The focus is not trying to convince you of the speed of the computer (D) or the ability of people making mistakes (A). The relationships between mammals is not relevant here (C).

- 24.** The most important data in creating an artificial evolutionary tree is
- A. the genome sequences.
 - B. understanding of mammalian ancestry.
 - C. blood samples from ancient mammals.
 - D. chromosome mapping.

(A) The first sentence of the second paragraph states this.

- 25.** Statistics were used in this passage to
- A. present the effectiveness of a computer-generated study.
 - B. show the averages of human error.
 - C. explain how DNA typing works.
 - D. convince you that *Jurassic Park* was a movie based on inaccuracy.

(A) This is not a persuasive essay on film (D), nor does it give examples of how they type DNA (C). The purpose is not to evaluate human error, as it is to show the advantages to using computers.

- 26.** The end of this passage implies
- A. that this type of study can only be taken to a certain level before it no longer works.
 - B. that this type of study can lead to changes in existing understandings of species.
 - C. that it would take too long to bring this type of study up to date.
 - D. that this type of study would be beneficial in supporting existing hypotheses.

(B) The last sentence says “there would be new insights into the core biology,” which indicates that new information might challenge the existing ones.

- 27.** The tone of this passage is
- A. critical of movies that misrepresent scientific facts.
 - B. supportive of research done by computers.
 - C. amazed at the extent to which genome sequencing has led to discoveries.
 - D. relieved that a reliable source of study is available through DNA archeology.

(B) This is a basic expounding of information that demonstrates the worth of computer research. Hence, it is not critical of movies (A) nor amazed (C) at anything. There is no anxiety in the tone, so there is no need to be relieved (D).

Passage 5

In December of 2002, in Fort Meyers, Florida, over 3,000 people met in the convention center to protest federal restrictions on waterfront development. These people felt that their basic rights were being violated. They did not have the freedom to use land as they wished. Since land in Florida is at a premium, especially on the intercoastal waterway which is a superhighway for boats, these people wanted their voices to be heard. On the other hand, the government's concern is to safeguard the chubby, marine mammal known as the manatee. These sea cows inhabit the many bays, canals and rivers of Florida. Their primary cause of death of these slow-moving creatures is accidents with boats. They were placed on the endangered species list in 1967. Boaters and developers argue that these mammals have rebounded in numbers, but their protectors maintain that they are just holding their own.

These creatures are certainly not beautiful yet they endear themselves to many. Their body looks like a dumpling with a paddlelike tail and a squint like Mr. Magoo's. An average adult is about ten feet long and weighs 1,000 pounds. The animals tend to be solitary, except when mating or when cold weather prompts them to huddle near the warm springs or power plant discharge pipes. Like seals and walruses, manatees breathe through their snouts. They surface to take breathes every three or four minutes. Manatees eat mostly aquatic vegetation and have even been seen hauling themselves onto lawns to munch the grass. Because of this grazing, they have been given the bovine nickname. They usually swim no faster than five miles an hour although they can sprint nearly three times as fast.

Although manatees once ranged from the Carolinas to the west coast of Africa, now they stay in the warmer waters. People once killed the manatees for their succulent meat, but even as early as the 1700's, there was recognition of their decreasing numbers. One of Florida's founding fathers, Frederick Morse, put a ban on the hunting of these mammals in 1893. Then, the major threat to their lives was the increase of boating accidents. Boat hulls and keels crack manatee's skulls and their ribs. The many scars on the animal's hide are nearly as distinctive as a fingerprint and constitute a way of identifying each individual creature. Even though these creatures are not vicious, because of man's encroachment on the waterways, their existence is constantly in peril. Proponents of expansion feel that these animals are no longer in danger and in fact, are encroaching upon man's territory. Thus, the solution to the problem would be the development of a symbiotic relationship between man and mammal.

28. The purpose of the 3,000 people at the convention center was

- A. to protest the endangerment of the manatees.
- B. to voice their concern about the inability to develop land.
- C. to complain about the intrusion of government on local politics.
- D. to encourage people to get out and vote.

(B) The purpose of the people was to "protest federal restrictions" so they would not be supporting the manatees (A) nor did it have anything to do with voting (D). There was no mention of a clash between federal and local politics. (C).

29. The biggest threat to manatees is

- A. dwindling food supplies.
- B. polluted waterways.
- C. accidents from boats.
- D. human diseases carried in the water.

(C) Disease, pollution and feeding grounds were never included in the passage.

30. Manatees are most like

- A. whales because of their enormous size.
- B. seals because they are cute.
- C. walruses because they breathe air.
- D. sharks because they swim slowly.

(C) Both creatures need to surface in order to breathe.

31. They are nicknamed sea cows because of

- A. how they look.
- B. how they eat.
- C. how they swim.
- D. how they reproduce.

(B) It states that sea cows graze on vegetation and can be seen munching on people's lawns.

32. The scars on their backs indicate

- A. how old they are.
- B. how aggressive they have been.
- C. what diseases they have had.
- D. how many injuries from boats have happened.

(D) The passage never talks about age (A) temperament (B) or disease (C) in the animals.

33. Scientists can best label individual manatees through

- A. their feeding habits.
- B. their scar patterns.
- C. their dorsal fins.
- D. their swimming style.

(B) The unique scar patterns are like fingerprints.

34. The author's purpose of this passage was to

- A. present a compelling reason for outlawing boats on the waterway.
- B. criticize developers for their avarice.
- C. propose solutions to the dilemma.
- D. explain the information behind a heated issue.

(D) The purpose is not to outlaw boats (A) nor to put value judgments on the developers (B). There is no concrete solution. (C). It purely talks about the different perspectives on the problem.

Passage 6

Most people get up in the morning and immediately turn on the radio or television to see what the temperature is and what the weather will be. This is how we plan our day. Likewise, the U.S. military relies on the scientists and programmers at the Navy's Fleet Numerical Meteorology and Oceanography Center (FNMOC) for timely, accurate weather data and maps to facilitate their missions. This is a very tall order for this group. Faced with having to create about 2.6 million oceanic and atmospheric charts, analyses, forecasts and related data sets daily, the center is in need of improving their processes. The task of keeping data in some sort of order is one challenge. To be able to retrieve and analyze it provides another challenge. Furthermore, having the space that such paper documentation uses is a further issue. To try and rectify this, the Naval center has turned to a collaborative approach where there is an online forum. This cyberspace chat room is where scientists can communicate about their projects. The software, specially developed for this purpose allows military and civilian scientists, meteorologists and developers who discuss their objectives, strategies and deadlines within the firewall. Users exchange open-source or proprietary codes within their own repositories. Unlike using e-mail, people can communicate in a single location which facilitates project tracking. This increases efficiency for the meteorology and oceanography centers where the number of teams of programmers has dwindled due to budget cuts. Currently, there are 64 Navy projects and up to 200 registered users who are spread out across multiple locations.

It is too early to quantify how much this computer service has improved application-development process, but there is evidence of fewer meetings and exchanges of e-mails. Furthermore, all the documentation can be stored on the hard drive to eliminate the space problem. The retrieval of information is immediate and organized. The Navy is optimistic about transferring over 170 applications that were done manually to computer-generated activities.

- 35.** The U.S. military relies on the FNMOC for
- A. only maps for indication of ocean currents.
 - B. weather data for ground conditions of troop removal.
 - C. maps and weather for military missions.
 - D. help in deciding the next move in an important project.

(C) (A) and (B) are too narrow. (D) has no evidence in the text.

- 36.** The biggest challenge for the FNMOC is
- A. creating 2.6 million oceanic and atmospheric charts.
 - B. keeping data in one place.
 - C. being able to retrieve the information.
 - D. all of the above.

(D) All those details are found in the first paragraph.

- 37.** Their cyberspace chatroom is where
- A. scientists can exchange ideas about their project.
 - B. naval officers can get good suggestions about maneuvers.
 - C. weather reports are found.
 - D. maps of ocean currents are available.

(A) The sentence which states this fact is in the middle of the first paragraph.

- 38.** The new software is
- A. useful to all different groups of people.
 - B. has complicated security codes.
 - C. allows only the most important data to be stored easily.
 - D. allows only the military to access the important information.

(A) The text states that military and civilian scientists, meteorologists and developers all can use the system. Thus it is useful to all people.

- 39.** What helps facilitate project tracking is
- A. meteorology and oceanography centers located near each other.
 - B. the software that allows people to communicate in a single location.
 - C. the dwindling number of teams of programmers.
 - D. the 200 users are spread out across multiple locations.

(B) This statement is found at the end of the first paragraph.

- 40.** The word *quantify* in the first sentence of the last paragraph most closely means
- A. looking for positive data.
 - B. determining how much something costs.
 - C. examining the program for its bugs.
 - D. predicting its future success.

(D) Although looking for positive data (A) and examining for bugs (C) might be incorporated in analyzing its effectiveness, the word quantify suggests predicting its future success.

- 41.** Success will be measured by
- A. the number of e-mails and meetings that have to have happen.
 - B. the positive questionnaire that they receive.
 - C. the success of Naval missions.
 - D. the happiness of 170 applications of the Navy workers.

(A) No questionnaires were mentioned (B). there is no specific information about successes (C) and the reference to 170 applications is talking about something else (D).

Passage 7

Most people believe that mental illness is some form of psychological weakness or hereditary trait. However, some scientists at the National Institute of Mental Health have extracted protein from spinal fluid of both healthy and schizophrenic people that indicate patterns that might identify viruses linked to some cases of the disease. Theories about the possible role of viral infections in schizophrenia have circulated in the psychiatric community for more than a century. Because there has only been indirect evidence, there is much controversy about this issue.

The term schizophrenia encompasses a number of disorders that are caused by genes, stress, early family interactions, chemical imbalance, infections, nutrition, or some combination of them. Symptoms include social withdrawal, incoherent speech, blunted emotions, delusions, and hallucinations. At least 2 million people in the United States are estimated to have some form of this mental disease.

In the past few years, other ailments like multiple sclerosis and Alzheimer's disease are brain diseases which are being examined for evidence of viral infections. Researchers believe that this form of mental disease might also be related to viruses because incidents may remain inactive for 20 years and then flare-up.

One way to check for evidence of viruses is to examine the spinal fluid, which closely reflects brain proteins. More than 300 proteins have now been separated and identified by advanced staining and computer analysis processes. Since one third of the patients had a pair of proteins that always surfaced together, and these proteins are also present in those suffering from herpes encephalitis or creutzfeldt-Jakob disease, there is speculation that there might be a connection to schizophrenia. However, the problem remains as to whether the proteins represent a viral infection that precedes the disease or whether they are a result of the nervous system and immune system changes caused by the disease.

Continued research could unlock more information about the connections that might present medication that could help or prevent the onslaught of this mental illness. What has to happen is the collaboration between immunologists and biological psychiatrists so that theories can be more rigorously studied and tested.

42. The following statement is true:

- A. Mental illness is a hereditary trait.
- B. Bacterial infections cause schizophrenia.
- C. Protein in spinal fluid might be used as a determinant to causes of mental illness.
- D. There are no recognizable patterns in types of mental illnesses.

(A) It is stated in the first sentence.

43. Schizophrenia is a disorder that

- A. could be linked to early family interactions.
- B. is not a major illness in the United States.
- C. only causes delusions and hallucinations.
- D. is definitely caused by a chemical imbalance.

(A) The first sentence in the second paragraph states this.

44. The reason why doctors are examining spinal fluid is

- A. because it is easy to reach and cultivate in labs.
- B. it resembles brain proteins.
- C. it has over 200 proteins.
- D. it can be easily stained and analyzed by a computer.

(B) This is stated in the first sentence of the fourth paragraph.

45. The commonality between herpes encephalitis and creutzfeldt-Jakob disease is

- A. people who have either disease possess similar blood proteins.
- B. they are also suffering from schizophrenia.
- C. they might have caught a bacteria infection.
- D. they are immune to certain antibiotics.

(A) Evidence is found in paragraph four.

46. The major problem with the results of this study is

- A. whether the proteins are a result of an infection that precedes the disease or if it is the result of changes in the immune system before the disease.
- B. whether the proteins are a result of an infection the proceeds with the disease or if the result if caused by nervous system infections.
- C. whether the proteins are a result of an infection that precedes the disease if it is the result of changes in the immune system due to the disease.
- D. whether the proteins are a result of immunization or whether they are the result of post disease syndrome.

(C) Evidence is found in paragraph four. Be careful of the difference between “precedes” (C) and “proceeds”(B).

47. The results of the research hope to be able to

- A. find medications that could help or prevent the onslaught of the disease.
- B. predict when the onslaught of the disease will happen.
- C. unlock connections between medications and infections.
- D. rebuild the nervous system after the onslaught of the disease.

(A) (B) and (C) are too narrow and (D) has no evidence to support that idea.

48. The attitude of the author of this article is:

- A. angry with the lack of money given for this type of research.
- B. annoyed that research is happening so slowly.
- C. encouraged that connections will help with a breakthrough in the next year or so.
- D. adamant that immunologists and biological psychiatrists need to work together for progress to be made.

(D) The wording of the last sentence indicates a firm belief (adamant) about the need for collaboration. There is no evidence of anger (A), annoyance (B), or the encouragement (C) are due to the collaboration that is necessary.

Passage 8

Prostate cancer is the most common form of cancer in men. Although the causes of this disease are not truly understood, there is evidence that it is associated with age. The way to test for this disease is to take a biopsy, a microscopic examination of a tiny sample of prostate tissue. However, even if the results come back negative, as they do for the majority of the tests, this is not the end of the potential problem. As men age, they continue to be at risk. If there is history of this disease, then they are at higher risk. Furthermore, some of the symptoms of the disease continue even if the cancer is not there.

The existing treatment of this cancer can include hormonal therapy, radiation treatment and surgery. All three conventional treatments are accepted widely. However, because there are significant side effects to each of the treatments, people are also turning to herbal remedies and nutritional supplements to alleviate symptoms or promote prostate health. The challenge to the consumer is to keep careful watch on the evidence of effectiveness of this ever-growing list of vitamins, herbs and minerals.

While widely used drugs have gone through rigorous tests, many of the “natural” remedies have not. Thus, the need for appropriate lab tests and research is an expanding area of science. Pre-clinical tests include test tube procedures, followed by cell-based assays and end with animal-based studies. For natural based compounds, the primary question is whether these substances exhibit toxicity and to what extent. Studies on these elements will determine the effect the substance has for cell proliferation and whether their effect is tissue specific. As more and more of these tests are taken, the cost of these “natural” remedies are going to increase, making them less appealing to patients and more of a concern to the insurance companies who will have to determine if they will pay for them.

49. In the third sentence, the word *biopsy* most closely indicates

- A. a type of minor, investigative surgery.
- B. a type of lab test on rat cells to figure out rate of tissue growth.
- C. a major type of surgery to correct the problem.
- D. an aggressive use of medication to cure the problem.

(A) It states that it is microscopic and uses only a tiny bit of tissue.

50. Which of the following statements is correct?

- A. As men age, they are less likely to need to be tested as often.
- B. Even a negative test does not indicate the lack of cancer.
- C. These tests are easily done and completely accurate.
- D. Past history does not affect the possibilities of getting the cancer.

(B) This is stated in the third sentence of the first paragraph.

51. Because of the negative side effects of traditional treatments of prostate cancer, patients are

- A. dying faster because patients are not following the regimen.
- B. seeking alternatives that might be less invasive.
- C. asking insurance companies to pay for their over-the-counter medication.
- D. watching TV for advice on how to treat the disease.

(B) (A)(C)(D) have no support within the article.

52. The danger with *natural remedies* is that

- A. they haven't had assays done.
- B. they are very expensive.
- C. their effectiveness is entirely false.
- D. their test tube results are spurious.

(A) Tests include three steps and doing assays is one of them. Natural remedies have not gone through the extensive tests that the pharmaceuticals have.

53. Two areas of importance in determining the effectiveness of natural remedies are

- A. pre-clinical tests and cost.
- B. cell proliferation and tissue specificity.
- C. taste and toxicity.
- D. how they are marketing and who will market them.

(B) This is stated at the end of the third paragraph. Cost (A) is not mentioned. (C) Taste is not mentioned nor is marketing (D).

54. What might make these remedies less appealing is

- A. the cost when more tests require higher prices.
- B. the availability because more people will want them.
- C. the taste because they are all natural.
- D. the lack of studies in comparison to the other treatments.

(A) The second to the last sentence of the article states this.

55. There is the suggestion that alternate treatments to diseases is partially controlled by

- A. news reports on TV.
- B. doctors and pharmacists.
- C. insurance companies.
- D. researchers and scientists.

(C) This is stated in the last sentence.