PART 1: Read the passage carefully and choose the correct answer

It's a sound you will probably never hear, a sickened tree sending out a distress signal. However, a team of scientists at the U.S. Department of Agriculture's Forest Service has recently heard the cries, and they think some insects also hear the trees and are drawn to them like vultures attracted to a dying animal.

Researchers hypothesized that these sound- actually vibrations produced by the surface of plants were caused by a severe lack of moisture. They fastened electronic sensors to the bark of drought stricken trees and clearly heard distress calls. According to one of the scientists, most parched trees transmit their plight in the 50- 500-kilohertz range. (The unaided human ear can detect no more than 20 kilohertz). They experimented on red oak, maple, white pine, aspen and birch and found that all make slightly different sounds. With practice, scientists could identify the species of tree by its characteristic sound signature.

The scientists surmise that the vibrations are created when the water columns inside tubes that run the length of the trees are cracked, a result of too little water following through them. These fractured columns send out distinctive vibration patterns. Because some insects communicate at ultrasonic frequencies, they may pick up the trees' vibration and attack the weakened trees. Researchers are now running tests with potted trees that have been deprived of water to see if the sound is what attracts the insects. "Water-stressed trees also have a different smell from other trees, and they experience thermal changes, so insects could be responding to something other than sound", one scientist said.

1. It can be inferred from the passage that, at the time the passage was written, research concerning the distress signals of trees…

A. had been conducted many years previously
B. was continuing
C. was no longer sponsored by the government
D. had been unproductive up until then

2. It can be inferred from the passage that the sounds produced by the trees…

A. serve as a form of communication among trees
B. fall into the 1 –20 kilohertz range plight parched
C. are the same no matter what type of tree produces them
D. cannot be heard by the unaided human ear

3. Which of the following is believed to be a cause of the trees' distress signals?

A. attacks by insects
B. lack of water
C. experiments by scientists
D. torn roots

4. Which of the following is the main topic of the passage?

A. the effect of insects on trees.
B. the vibrations produced by insects.
C. the sounds made by trees.
D. the mission of the U.S. Forest Service.

5. All of the following are mentioned as possible factors in drawing insects to weakened trees except…

A. sounds
B. smells
C. thermal changes
D. changes in color

LIVEWORKSHEETS

PART 2: Read the passage carefully and choose the correct answer

The advent of the Internet may be one of the most important technological developments in recent years. Never before have so many people had access to so many different sources of information. For all of the Internet's advantages, however, people are currently becoming aware of some of its drawbacks and are looking for creative solutions. Among the current problems, which include a general lack of reliability and numerous security concerns, the most crucial is speed.

First of all, the Internet has grown very quickly. In 1990, only a few academics had ever heard of the Internet. In 1996, over 50 million people used it. Every year, the number of people with access to the Internet doubles. The rapid growth has been a problem. The computer systems which run the Internet have not been able to keep up with the demand. Also, sometimes, a request for information must pass through many routing computers before the information can be obtained. A request for information made in Paris might have to go through computers in New York, Los Angeles and Tokyo in order to obtain the required information. Consequently, the service is often slow and unpredictable. Service also tends to be worse when the Internet is busiest – during the business day of the Western Hemisphere – which is also when companies need its service the most.

Some people are trying to harness the power of networked computers in such a way as to avoid this problem. In 1995, a group of American universities banded together to form what has come to be known as Internet II. Internet II is a smaller, more specialized system intended for academic use. Since it is more specialized, fewer users are allowed access. Consequently, the time required to receive information has decreased.

Businesses are beginning to explore a possible analogue to the Internet II. Many businesses are creating their own "Intranets". These are systems that can only be used by the members of the same company. In theory, fewer users should translate into a faster system. Intranets are very useful for large national and international companies whose branches need to share information. Another benefit of an Intranet is an increased amount of security. Since only company employees have access to the information on the Intranet, their information is protected from competitors. While there is little doubt that the Internet will eventually be a fast and reliable service, industry and the academic community has taken their own steps toward making more practical global networks.

1. According to the passage, which of the following is not true of the Internet?

A. It has become increasingly less popular. B. It tends to be unreliable.
C. It has created a sense of financial security. D. It is too expensive to access.

2. According to the passage, which of the following statements was true in 1990?

A. The Internet experienced enormous growth rates. B. Internet data proved to be impractical.
C. Few people were using the Internet. D. The Internet was a secure means to gain information.

3. According to the author, what is one reason why the Internet is sometimes slow?

A. Scientists take up too much time on the Internet, thus slowing it down for everyone else.
B. Often a request must travel through many computers before it reaches its final destination.
C. Most people do not have computers that are fast enough to take advantage of the Internet.
D. Phone lines are often too busy with phone calls and fax transmissions to handle Internet traffic.

4. According to the passage, what benefits does Internet II have over the Internet I?

A. Internet II has fewer users and therefore is faster to access.
B. There is no governmental intervention regulating Internet II.
C. Internet II contains more information than the Internet.
D. Small businesses pay higher premiums to access to the Internet.

5. All of the following are advantages of business "Intranets" mentioned in the passage EXCEPT…

A. they move data faster
B. they provide a higher level of security
C. they are cheaper than other alternatives
D. they share information with other company branches

LIVEWORKSHEETS

PART 3: Read the passage carefully and choose the correct answer

Rachel Carson was born in 1907 in Springsdale, Pennsylvania. She studied biology at college and zoology at Johns Hopkins University, where she received her master's degree in 1933. In 1936, she was hired by the U.S. Fish and Wildlife Service, where she worked most of her life.

Carson's first book, **Under the Sea Wind**, was published in 1941. It received excellent reviews, but sales were poor until it was reissued in 1952. In that year she published *The Sea Around Us*, which provided a fascinating look beneath the ocean's surface, emphasizing human history as well as geology and marine biology. Her imagery and language had a poetic quality. Carson consulted no less than 1,000 printed sources. She had voluminous correspondence and frequent discussions with experts in the field. However, she always realized the limitations of her nontechnical readers.

In 1962, Carson published **Silent Spring**, a book that sparked considerable controversy. It proved how much harm was done by the uncontrolled, reckless use of insecticides. She detailed how they poison the food supply of animals, kill birds and fish, and contaminate human food. At the time, spokesmen for the chemical industry mounted personal attacks against Carson and issued propaganda to indicate that her findings were flawed. However, her work was proved by a 1963 report of the President's Science Advisory Committee.

1. The passage mainly discusses Rachel Carson's work…

A. as a researcher
B. at college
C. at the U.S. Fish and Wildlife Service
D. as a writer

2. According to the passage, what did Carson primarily study at Johns Hopkins University?

A. oceanography
B. zoology
C. literature
D. history

3. When she published her first book, Carson was closest to the age of…

A. 26
B. 29
C. 34
D. 45

4. It can be inferred from the passage that in 1952, Carson's book Under the Sea Wind…

A. was outdated
B. became more popular than her other books
C. was praised by critics
D. sold many copies

5. According to the passage, Silent Spring is primarily…

A. an attack on the use of chemical preservatives in food
B. a discussion of the hazards insects pose to the food supply
C. a warning about the dangers of misusing insecticides
D. an illustration of the benefits of the chemical industry

LIVEWORKSHEETS