



**A. Read the text below and answer the questions that follow. (6x1,5=9 pts.)**

**ATTACK OF THE FIRE ANTS**

**I.** The red fire ant is one of over eighty thousand species of ants worldwide. Like their close relatives, the bees, many species of ant have a sharp attached part, called a stinger, at the end of their body. Most bees can sting only once, and then they die. An ant's stinger can be used repeatedly.

**II.** The red fire ant is not native to North America. It arrived on ships from South America in the 1930s through the port of Mobile, Alabama. That landing in Alabama initiated a full-scale invasion. Since then, fire ants have spread throughout the southern United States and Puerto Rico. Following World War II, circumstances worked out in the ants' favor. The fire ant is known as a "tramp" or "weed" species because it thrives (like a weed) in recently cleared or disturbed areas. After the war, there was rapid population growth in the "Sunbelt" of America's south and southwest. Land cleared for new homes, parks, and factories was a perfect habitat for fire ants. By 1950, they had made it halfway up the border between Mississippi and Alabama. Since then, they have firmly settled down in Texas, and they are relatively common in Arizona. A few have shown up in California. They may eventually move into some milder parts of Oregon and Washington.

**III.** Public health experts estimate that, in any given year, from 30 to 60 percent of people living in fire-ant zones in the United States are stung. The ant grasps the skin with its tiny, powerful jaws, arches its body, injects the stinger into the skin, and releases venom which is the poisonous liquid. If not stopped, the ant will rotate itself around and create a whole circle of stings. There's an immediate burning sensation, followed by hours to days of intense itching. Virtually everyone who is stung by a fire ant develops a red welt that stays painful for several days. Up to half of the victims will experience larger reactions near the location of the bite.

**IV.** Fire ant venom may be toxic to the nervous system. One tree trimmer in Florida suffered serious fire ant attacks three times within one year. After the third attack, his right hand and forearm became numb and his wrist became weak. This condition lasted for about a month. The venom is also "necrotic" - it kills the tissue that it comes in contact with. If this necrosis, or tissue death, happens after a sting, permanent scars may remain on a victim's skin. Terrible sores can result if an infection takes hold near the necrotic tissue. The most dangerous physical response to a fire ant sting, however, is an anaphylactic reaction. This is the same kind of reaction some people have to bee stings and is similar to an extreme allergy. It begins with weakness, itching, chest tightness, and wheezing. This can bring on a sharp fall in blood pressure and sometimes even death. In some fire-ant zones, fire ant venom causes more fatal reactions than bee stings. In sensitive people, a single sting is usually enough to initiate the reaction.

**V.** Fire ant venom is a watery solution of toxin that affects human mast cells. These cells are filled with a chemical called "histamine." Histamine is the same chemical that triggers the sneezing, itching, and other symptoms of an allergy. When an allergy-causing substance enters the body, the walls of the mast cell weaken until they can no longer contain the histamine. The cell explodes, releasing a rush of histamine. If these histamine explosions occur in the lungs, the reaction can be serious—perhaps including a blockage of the passages that deliver air to the lungs. These lung problems are not common, but they are a real threat to anyone extremely sensitive to fire-ant venom.

**VI.** Nothing can completely neutralize the effects of fire-ant venom, but people sensitive to it who live in fire-ant territory have some treatment choices. Immunotherapy is currently the best option for minimizing reactions. It consists of a series of injections, administered according to a regular schedule. Initially, patients receive very small amounts of fire-ant venom that their bodies can tolerate. With each injection, the amount of venom is increased, which causes the person's body to start building up resistance to it. Eventually, patients have sufficient defenses to tolerate a fire-ant sting. The immunotherapy regime is expensive, and it also requires a long-term commitment. Doctors estimate that treatments will take as long as two years.



- 1. What is the text mainly about?**
  - a. similarities and differences between fire ants and their close relatives, bees
  - b. common features between fire ants and other types of ants
  - c. how World War II affected the population of fire ants adversely
  - d. the spread of fire ants and the effects of their sting
- 2. Which of the following is NOT TRUE about red fire ants?**
  - a. Conditions affected fire ants in some ways like growing in number after World War II.
  - b. Unlike fire ants, plenty of bees can use their stingers several times.
  - c. The spreading of fire ants throughout Puerto Rico started with their arriving in Alabama.
  - d. Fire ants did not exist naturally in North America.
- 3. It is certainly TRUE that fire ants .....**
  - a. prefer cleared and disturbed areas to settle down
  - b. are rarely found in Arizona and Texas
  - c. crossed all the border between Mississippi and Alabama shortly before 1950
  - d. decreased in number in some parts of America following World War II
- 4. Which of the following CANNOT be inferred about the anaphylactic reaction?**
  - a. It is possible for people to die because of an anaphylactic reaction.
  - b. It is accepted as more dangerous than all the other reactions which occur after a fire ant stings.
  - c. It causes some changes in the human body, such as itching and chest tightness.
  - d. The anaphylactic reaction, which can be deadly, occurs only when a fire ant stings.
- 5. Which of the following is NOT TRUE about fire ant venom?**
  - a. It no longer has an effect on human mast cells, which are full of histamine.
  - b. It may cause some health problems because it may be harmful to the nervous system.
  - c. It is dangerous for people who are sensitive to it because it may be a reason for lung problems.
  - d. It may result in permanent scars on a person's skin because of its necrotic feature.
- 6. Which of the following is TRUE according to paragraph VI?**
  - a. There are currently a couple of ways to neutralize fire ant venom.
  - b. To build up resistance to fire ant venom, a patient receives increasing amounts of venom.
  - c. The cost of immunotherapy is enormous for most patients; however, it doesn't last so long.
  - d. Immunotherapy is offered only to the people who are stung by fire ants.

**ANSWERS:**

1. D
2. B
3. A
4. D
5. A
6. B