PASSAGE 2 – Questions 11-20

Since water is the basis of life, composing the **greater** part of the tissues of all living things, the crucial problem of desert animals is to survive in a world where sources of flowing water are rare. And since man's inexorable necessity is to absorb large quantities of water at frequent intervals, he can scarcely comprehend that many creatures of the desert pass their entire lives without a single drop. Uncompromising as it is, the desert has not eliminated life but only **those forms** unable to withstand its **desiccating** effects. No moist-skinned, water-loving animals can exist there. Few large animals are found: the giants of the North American desert are the deer, the coyote, and the bobcat. Since desert country is open, it holds more swift-footed, running, and leaping creatures than the tangled forest. Its population are largely nocturnal, silent, filled with reticence, and ruled by stealth. Yet they are not **emaciated**. Having adapted to their austere environment, they are as healthy as animals anywhere in the world.

The secret of their adjustment lies in a combination of behavior and physiology. None could survive if, like mad dogs and Englishmen, they went out in the midday sun; many would die in a matter of minutes. So most of them pass the burning hours asleep in cool, humid burrows underneath the ground, emerging to hunt only by night. The surface of the sun-baked desert averages around 150 degrees, but 18 inches down the temperature is only 60 degrees.

An example of a desert animal that has adapted to **subterranean** living and lack of water is the kangaroo rat. Like many desert animals, kangaroo rats stay underground during the day. At night, they go outside to look for food. As evening temperatures drop, moisture from the air forms on plants and seeds. **They** absorb some of this moisture and kangaroo rats take in the life-giving water as they eat.

11. What is the topic of this passage?

A. Desert plants

B. Life underground

C. Animal life in a desert environment

D. Man's life in the desert

LIVEWORKSHEETS

12. The word "<u>greater</u>" in the passage is closest in meaning to_____.

A. stronger
B. larger
C. more noticeable
D. heavier

13. The phrase "<u>those forms</u>" in the passage refers to all of the following EXCEPT_____.

A. water-loving animals
B. the bobcat
C. moist-skinned animals
D. many large animals

14. The word "<u>desiccating</u>" in the passage means_____.

A. drying
B. humidifying
C. killing
D. life threatening

15. The author mentions all of the following as examples of the behavior of desert animals EXCEPT_____.

A. animals sleep during the day
B. animals dig homes underground
C. animals are noisy and aggressive
D. animals are watchful and quiet

16. The word "<u>emaciated</u>" in the passage is closest in meaning to_____.

A. wild
B. cunning
C. unmanageable
D. unhealthy

17. The author states that one characteristic of animals who live in the desert is that they____.

A. are smaller and fleeter than forest animals
B. are less healthy than animals who live in different places
C. can hunt in temperatures of 150 degrees
D. live in an accommodating environment

LIVEWORKSHEETS

18. The word "<u>subterranean</u>" in the passage is closest in meaning to_____.

A. underground B. safe

C. precarious D. harsh

19. The word "<u>they</u>" in the passage refers to_____.

A. kangaroo rats

B. the desert population

C. plants and seeds

D. the burrows of desert animals

20. Which of the following generalizations are supported by the passage?

A. Water is the basis of life.

B. All living things adjust to their environments.

C. Desert life is colorful.

D. Healthy animals live longer lives.

PASSAGE 3 – Questions 21-30

Animals and higher-order plants depend on nitrogen that is present in soil as they cannot utilize free nitrogen from the atmosphere. To enter living systems, nitrogen must be combined with oxygen or hydrogen to form compounds such as ammonia or nitrates that plants are able to use. Nitrogen gas is converted to ammonia fertilizer by a chemical process involving high pressure and high temperature. This process is called nitrogen fixation. Martinus Willem Beijerinck discovered nitrogen fixation.

The nitrogen molecule is quite inert and breaking it apart requires a considerable amount of energy. There are three processes that are responsible for most of the nitrogen fixation in the biosphere. They are atmospheric fixation, biological fixation, and industrial fixation. Atmospheric fixation occurs through lightning, forest fires, or even hot lava flows where energy **<u>breaks down</u>** nitrogen molecules and enables their atoms to combine with oxygen in the air, thus forming nitrogen oxides. These liquefy in rain, forming nitrates, that are then carried to earth.

LIVEWORKSHEETS