



Questions 1–9

Line While most desert animals will drink water if confronted with it, for many of
(5) them the opportunity never comes. Yet all living things must have water, or they
will expire. The herbivores find it in desert plants. The carnivores slake their thirst
with the flesh and blood of living prey. One of the most remarkable adjustments,
(10) however, has been made by the tiny kangaroo rat, who not only lives without
drinking but subsists on a diet of dry seeds containing about 5% free water. Like
other animals, he has the ability to manufacture water in his body by a metabolic
conversion of carbohydrates. But he is notable for the parsimony with which he
conserves his small supply by every possible means, expending only minuscule
amounts in his excreta and through evaporation from his respiratory tract.

(15) Investigation into how the kangaroo rat can live without drinking water has
involved various experiments with these small animals. Could kangaroo rats
somehow store water in their bodies and slowly utilize these resources in the long
periods when no free water is available from dew or rain? The simplest way to
settle this question was to determine the total water content in the animals to see if
it decreases as they are kept for long periods on a dry diet. If they slowly use up
their water, the body should become increasingly dehydrated, and if they begin
with a store of water, this should be evident from an initial high water content.
(20) Results of such experiments with kangaroo rats on dry diets for more than 7 weeks
showed that the rats maintained their body weight. There was no trend toward a
decrease in water content during the long period of water deprivation. When the
kangaroo rats were given free access to water, they did not drink water. They did
nibble on small pieces of watermelon, but this did not change appreciably the
water content in their bodies, which remained at 66.3 to 67.2 during this period.
(25) This is very close to the water content of dry-fed animals (66.5), and the availability
of free water, therefore, did not lead to any "storage" that could be meaningful as a
water reserve. This makes it reasonable to conclude that physiological storage of
water is not a factor in the kangaroo rat's ability to live on dry food.

1. What is the topic of this passage?
(A) Kangaroo rats
(B) Water in the desert
(C) Desert life
(D) Physiological experiments
2. The word "expire" in line 3 is closest in meaning to
(A) become ill
(B) die
(C) shrink
(D) dehydrate
3. Which of the following is NOT a source of water for the desert animals?
(A) Desert plants
(B) Metabolic conversion of carbohydrates in the body
(C) The blood of other animals
(D) Streams
4. The word "it" in line 3 refers to
(A) a living thing
(B) the desert
(C) the opportunity
(D) water

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