Applied Practice

Interaction of Biological Systems

STAAR Biology EOC

RESOURCE GUIDE

Volume 8

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Printed in the United States of America.

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Choose the best answer to each question.

1 Starch is broken down in the digestive system by the enzyme amylase into glucose. This is an example of —

A amylase digestion

B mechanical digestion

C physical digestion

D chemical digestion

---

2 Plants respond to their environment in order to ensure that they have the highest chance of survival. Often a plant will tilt or turn toward a light source in order to gain energy. This is an example of —

F geotropism

G transpiration

H phototropism

J pollination

---

3 Within the human body, digestion of food is handled by the mouth, esophagus, stomach, small intestine, and large intestine. This is an example of a(n) —

A organ

B tissue system

C organ system

D organism

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4 Receptors are organs in the body capable of detecting a stimulus. The receptors are the five sensory organs of the body: eyes, ears, nose, tongue, and skin. In order to move away from a stimulus, which of the following would be a logical effector?

F Smooth muscle

G Thyroid glands

H Pituitary glands

J Skeletal muscle

---

5 When groups of different species live together in one specific area, this is known as a(n) —

A community

B population

C species

D ecosystem

---

6 The small intestine is responsible for specific parts of the digestive process. It is also responsible for reabsorbing food particles and water from chemically digested food. These particles enter the blood stream through the —

F capillaries

G villi

H bile

J pancreatic fluid

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7 Which process, which occurs in a leaf, allows for more water to be pulled up into the roots of a plant?

A Transpiration

B Evaporation

C Translocation

D Photosynthesis

---

8 Deforestation can change the composition of the soil in an area. This can cause a change in the type of microorganisms that live in the soil of that area. Deforestation therefore can impact the —

F community

G population

H biosphere

J ecosystem

---

9 The human body helps maintain internal body temperature by releasing water, urea, and salt from the body through the skin. The water evaporates off the surface of the skin, creating a cooling effect. This is an example of —

A excretion

B homeostasis

C osmosis

D respiration

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10 Seeds are found inside the ripened ovary of the flower, which is called the fruit. Animals eat fruits, and the seeds pass through their digestive system. Once the seeds are dropped at a new location, the seeds can stop being dormant and grow into a plant. The animals are helping prepare the seeds for the process of —

F dormancy

G dispersal

H translocation

J germination

---

11 The global sum of all the ecosystems on the planet Earth is known as the —

A biosphere

B global ecosystem

C geosphere

D bio-ecosystem

---

12 When a leaf is attacked by insects, it releases chemicals to trigger cell death in that leaf in order to preserve the rest of the plant. This type of defense mechanism is known as a(n) —

F constitutive defense

G hormone defense

H inducible defense

J structural defense

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