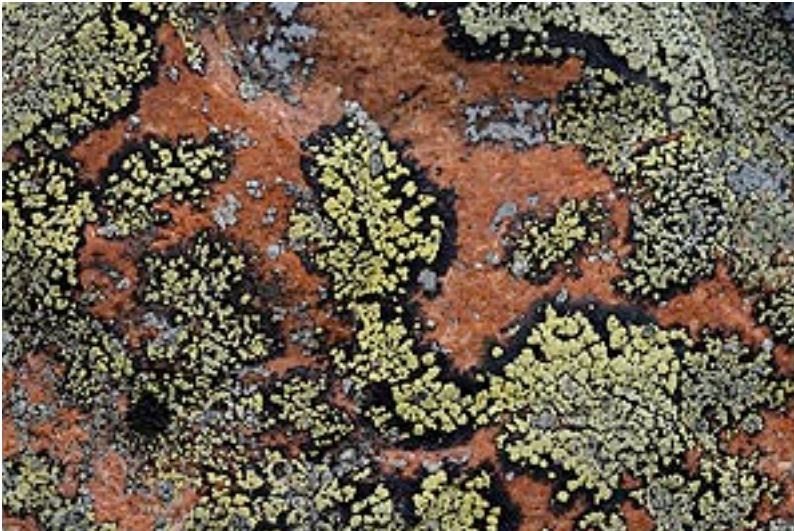


Life and Environmental Sciences
How Living Things Interact With Their Environment

Additional FCAT Practice Questions

Directions: Select the best answer for each of the following questions

1. Lichens are organisms that can grow on bare rock



Lichens are a fungus with algae growing inside; the algae are able to perform photosynthesis, which makes food for the fungus. If algae did not make food for the fungus, what would happen to the lichen?

- A. The lichen would grow faster.
- B. The lichen would not be able to survive.
- C. The fungus would eat the rock instead.
- D. The fungus would find another partner that can perform photosynthesis.

2. On a walk in the forest you come across an old, rotting log with mushrooms growing on top of it. What would be the best description of a mushroom?
- A. Consumer
 - B. Producer
 - C. Decomposer
 - D. Predator
3. An epiphyte is a plant that grows on another plant, such as this epiphyte growing on a tree.



The epiphyte gets a good place to grow, while the tree is not harmed and does not benefit. If the epiphyte dies, what will happen to the tree?

- A. The tree will die.
- B. The tree will grow faster.
- C. Nothing - the tree will not be affected.
- D. The tree will absorb more water.

4. A raccoon is an animal that eats other animals and plants.



What word best describes a raccoon?

- A. Prey
 - B. Decomposer
 - C. Consumer
 - D. Producer
5. The panthers found in Florida are hunters and meat eaters. What word would best describe a Florida panther?
- A. Scavenger
 - B. Producer
 - C. Decomposer
 - D. Consumer

6. There are many different species of fox. One species has short ears, a large amount of body fat, and thick white fur.



Where would you expect to find this species of fox?

- A. The arctic.
 - B. The everglades.
 - C. The tropical forest.
 - D. The desert.
7. Male stag beetles have very large mouthparts called mandibles that are used for fighting with other males. Elk have very large antlers that are used for fighting with other males.



Although these animals are very different, what is one way in which they are similar?

- A. They both use special body parts to compete for mates.
- B. They are both mammals.
- C. They both have hard outer body parts for protection.
- D. They both have special eyes for seeing in the dark.

8. Both worms and snakes have long, thin bodies that they can use with a winding motion to help them move across or through the ground.



Although these two organisms are very different, what is one way in which they are similar?

- A. They both use twisting body movement to go from place to place.
 - B. They both have hard outer coverings for protection.
 - C. They both have very good senses of smell.
 - D. They are both predators.
9. Polar bears have webbing between their toes, as do ducks. What benefit does webbed feet provide for both polar bears and ducks?
- A. Allows them to keep their feet warm.
 - B. Allows them to move easily through the water.
 - C. Allows them to trap food easily.
 - D. Allows them to run faster.

10. Woodpeckers have large neck muscles that wrap onto the top of their head.



What is the likely purpose of these large muscles?

- A. The muscles help woodpeckers to fly better.
 - B. The muscles help woodpeckers crack nuts.
 - C. The muscles help woodpeckers feed their young.
 - D. The muscles help woodpeckers make holes in wood with their beak.
11. Use the following information to answer the next 2 questions.

A bonsai is a miniature tree.



Which of the arrows in the diagram indicates where the primary release of oxygen occurs?

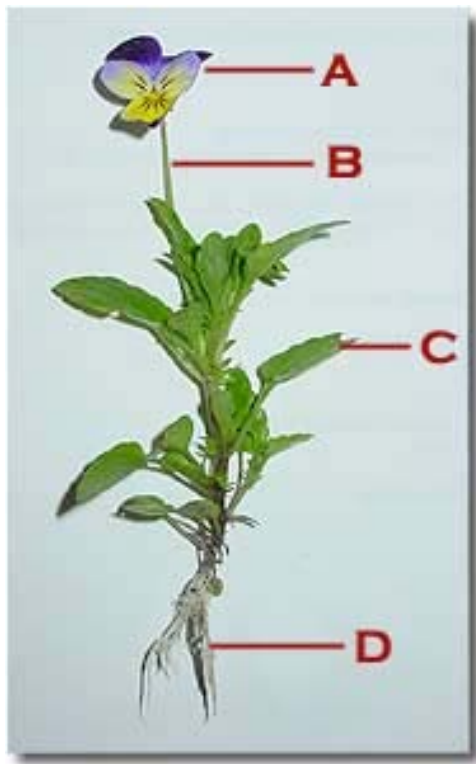
- A. A - out of the roots
- B. D - from the leaves
- C. B - into the roots
- D. C - into the leaves

12. Considering the diagram of the bonsai tree, which of the arrows in the diagram indicates where the most of the carbon dioxide is absorbed?

- A. A - out of the roots
- B. D - from the leaves
- C. B - into the roots
- D. C - into the leaves

13. Use the following information to answer the next 2 questions.

Violets are plants with pretty purplish flowers.



Which of the labelled parts of the violet plant is the primary site for absorbing water?

- A. C - leaves
- B. D - roots
- C. B - stem
- D. A - flower

14. Considering the diagram of the violet plant, which of the labelled parts of the violet plant is the location where the most photosynthesis takes place?
- A. C - leaves
 - B. D - roots
 - C. B - stem
 - D. A - flower
15. Trees in a heavy forest may compete for resources. Why does a taller tree have a better chance at surviving than shorter tree?
- A. Taller trees have thicker bark, which allows them to absorb more oxygen.
 - B. Taller trees have thinner roots, which allows them to absorb more water.
 - C. Taller trees get enough sunlight for photosynthesis, while blocking the sunlight from reaching shorter trees.
 - D. Taller trees are more flexible, allowing them to bend instead of breaking.
16. The lions of Africa are hunters and meat eaters. What word would best describe an African lion?
- A. Herbivore
 - B. Omnivore
 - C. Carnivore
 - D. Producer

17. A raccoon is an animal that eats other animals, plants, eggs and the leftover bits of food that other animals may leave behind. What word best describes a raccoon?
- A. Omnivore
 - B. Producer
 - C. Herbivore
 - D. Carnivore
18. Cows exclusively eat grass and plants. What word best describes a cow?
- A. Carnivore
 - B. Herbivore
 - C. Omnivore
 - D. Producer
19. On a walk through the forest, Joleen saw a large number of mushrooms growing out of an old fallen tree log. Why are the mushrooms growing on the dead log?
- A. Mushrooms use the energy from the water in the log.
 - B. Mushrooms use the energy produced through photosynthesis by the log.
 - C. Mushrooms use the energy produced through their own photosynthesis.
 - D. Mushrooms use the energy in decaying matter.
20. A brown bear catches salmon in a river.



Which of the following words best describes the bear?

- A. Producer
- B. Herbivore
- C. Consumer
- D. Decomposer

21. A baboon leaves a poor environment and enters an area where an existing group of baboons already live. What must the baboon do to survive in this new environment filled with other baboons?
- A. The baboon must compete with the other baboons for food and other resources.
 - B. The baboon must learn to hide.
 - C. The baboon must let other baboons use the food and resources first.
 - D. The baboon must return to its old poor environment.
22. An area on the edge of a city used to have 8 ground squirrels per acre, now it has only 2. What is the most likely reason for the decrease in the number of ground squirrels?
- A. New houses built in the area reduced the amount of land available for ground squirrels.
 - B. More squirrels moved in from another area creating more competition.
 - C. Too much grass is growing in the area.
 - D. The ground became too hard for squirrels to dig their holes in.
23. Loons are birds that build floating nests on water near the shore. In areas where houses are being built on the shore, biologists have built floating platforms out of wood and placed them on the water. Why were the platforms built?
- A. To provide a spot for the biologists to stand and feed the loons.
 - B. To provide spots for swimmers to get close to the loons.
 - C. To provide nesting spots for loons to replace those disturbed by the houses being built.
 - D. To provide spots for loons to compete for mates.

24. It is common for park visitors to feed birds such as ducks. In many communities biologists have placed signs that warn people not to feed the ducks. What is the most likely reason for the biologists to place the signs?
- A. The food from people will make the birds aggressive.
 - B. The food from people will make the birds sick.
 - C. If the birds are fed by people, they will come to depend on it. They will then be unable to support themselves.
 - D. If the birds are fed by people, there will soon be too many birds.
25. When a large area of farmland was turned into property for new houses, biologists noticed that the number of hawks in the area decreased. What is the most likely reason for the decrease in the number of hawks?
- A. The houses were a different color that scared the hawks away.
 - B. The houses polluted the air, which caused the hawks to fly to different areas.
 - C. Less farmland meant not area for the hawks to fly.
 - D. Less farmland reduced the amount of available mice, meaning less food for the hawks.

Answers

1. B
2. C
3. C
4. C
5. D
6. A
7. A
8. A
9. B
10. D
11. B
12. D
13. B
14. A
15. C
16. C
17. A
18. B
19. D
20. C
21. A
22. A
23. C
24. C
25. D