

Chapter 11: The Role of Plants in Ecosystems Part 3

MULTIPLE RESPONSE

1. Which of the following things do plants need to conduct photosynthesis? Select all that apply.
 - water
 - sunlight
 - carbon dioxide
 - oxygen
 - glucose
2. A red-tailed hawk eats a frog, which eats grasshoppers, which eat grass. A wild turkey eats a frog, and a human eats a wild turkey. Which organism or organisms occupy the fourth level of the food chain? Select all that apply.
 - grass
 - frog
 - human
 - hawk
 - wild turkey
3. Complete the following sentence with all terms that apply. Plants use light energy from the Sun to
 - conduct photosynthesis.
 - conduct cellular respiration.
 - conduct nitrogen fixation.
 - transform glucose and oxygen into carbon dioxide and water.
 - transform carbon dioxide and water into glucose and oxygen.
4. Which of the following is a part of the nitrogen cycle? Select all that apply.
 - evaporation
 - nitrogen fixation
 - nitrogen in the atmosphere
 - an animal eating a plant
 - photosynthesis
5. Which of the following is part of the carbon cycle? Select all that apply.
 - photosynthesis
 - respiration
 - evaporation
 - osmosis
 - fossil fuel combustion
6. How is use of a cover crop beneficial? Select all that apply.
 - It helps keep topsoil from washing away.
 - It adds nitrogen to the soil.
 - It removes nutrients from the soil.
 - It adds organic material to the soil.
 - It can help maintain water quality in neighbouring bodies of water.
7. Which of the following are ecosystem services provided by plants? Select all that apply.
 - filtering pollution
 - fixing nitrogen
 - providing a source of inspiration for artists
 - acting as carbon sinks
 - providing shade on a hot day
8. What is timber used for? Select all that apply.
 - carpentry
 - paper making
 - to make clothes
 - construction
 - to make linen

9. Which parts of the lady's slipper can be chopped up and used to treat toothache? Select all that apply.

- a. roots
- b. stem
- c. leaf
- d. flower
- e. stamen

10. Which of the following is associated with a monoculture? Select all that apply.

- a. varying the amounts of fertilizer in different parts of a plot
- b. a large corn field
- c. decreased crop yield
- d. a wheat field
- e. a variety of crops on the same plot of land

11. Select one or more choices to correctly complete the statement. Sustainable agriculture

- a. should be conducted only in Earth's tropical regions.
- b. may use green manure.
- c. always uses monoculture.
- d. involves compromising the ability of future generations to meet their needs.
- e. could involve managing pests naturally.

12. Which of the following people might work on a golf course? Select all that apply.

- a. a landscape technician
- b. an arborist
- c. farmer
- d. a horticulturalist
- e. farm manager

13. What activities are part of urban forest management? Select all that apply.

- a. pruning
- b. planting gardens in a city park
- c. researching a long-term tree management plan for a city, but not planting anything
- d. allowing non-native pests to kill a tree
- e. painting the sides of buildings with forest murals

14. Which of the following is an example of a sustainable action? Select all that apply.

- a. planting trees to replace those that have been cut for timber
- b. rapid growth of algae in a lake due to runoff of phosphorus from a farm
- c. using green manure on a farm
- d. paying farm workers very low wages to harvest coffee
- e. cutting down all members of a rare and valuable tree species to make a large profit

15. Which of the following is true of urban farming? Select all that apply.

- a. It improves city dwellers' access to fresh fruits and vegetables.
- b. It increases the distance between where crops are grown and where they are consumed.
- c. It decreases air quality.
- d. It creates a food desert.
- e. It may involve vertical farming.