

Study Guide – Ch 15

MATCHING

In the space provided, write the letter of the term or phrase that best matches the description.

- | | |
|--|----------------------------------|
| _____ 1. crop is harvested without turning over the soil | a. green revolution |
| _____ 2. causes resistance to pesticides | b. overuse of land |
| _____ 3. almost entirely a result of poverty | c. fertile soil |
| _____ 4. desirable traits transferred | d. high pesticide use |
| _____ 5. used to transfer desirable traits | e. integrated pest management |
| _____ 6. soil that can support the growth of healthy plants | f. no-till farming |
| _____ 7. characterized by new crop varieties, increased yields | g. accumulation of salts in soil |
| _____ 8. the goal is to minimize economic damage from pests | h. genetic engineering |
| _____ 9. results in depleted fish populations | i. overharvesting |
| _____ 10. salinization | j. malnutrition |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 11. A given plot of land can produce more food when used to grow plants than when used to raise animals because
- 1 Cal animal protein requires 10 Cal from plants.
 - one-tenth of a plant's mass can be used as food.
 - plants provide more nutrients per gram.
 - Both (a) and (b)
- _____ 12. The green revolution depended on
- | | |
|-----------------------------------|-----------------------------------|
| a. new biodegradable pesticides. | c. clearing forest for crop land. |
| b. high-yielding grain varieties. | d. organic fertilizers. |
- _____ 13. Most of the living organisms in fertile soil are found in
- | | |
|------------------------------------|-----------------|
| a. the surface litter and topsoil. | c. the subsoil. |
| b. the leaching zone. | d. the bedrock. |

- _____ 14. Erosion is a danger whenever the soil is
- bare and exposed to wind and rain.
 - plowed along the con-tour of the land.
 - covered with grass.
 - covered by forest.
- _____ 15. The development of pesticide resistance is an example of
- malnutrition.
 - persistence.
 - pest control.
 - evolution.
- _____ 16. All of the following describe typical types of malnutrition *except*
- amino acid deficiency.
 - insufficient variety of foods.
 - diet of mostly vegetables and grains.
 - low Calorie consumption.
- _____ 17. Livestock in developing countries provide
- manure.
 - eggs and meat.
 - leather and wool.
 - All of the above
- _____ 18. Biological pest control aims to do all the following *except*
- maintain tolerable pest levels.
 - reduce all insects to low levels.
 - leave non-pest species unharmed.
 - boost plants' natural defenses.
- _____ 19. Plowing with machines, irrigating with drip systems, and _____ are all modern agricultural methods.
- using manure
 - applying chemical fertilizers
 - irrigating with ditches
 - Both (a) and (b)
- _____ 20. Earth's available arable land is being reduced by
- fast-growing human populations.
 - soil erosion.
 - desertification.
 - All of the above
- _____ 21. All of these contribute to famine *except*
- crop failure.
 - green revolution.
 - unequal distribution of food.
 - drought.
- _____ 22. Almost _____ of the seafood consumed in the world is produced through aquaculture.
- one-half
 - one-third
 - one-fourth
 - three-fourths

CHAPTER 15 Review

Reviewing Key Terms

Use each of the following terms in a separate sentence.

1. *overharvesting*
2. *erosion*
3. *livestock*
4. *yield*
5. *genetic engineering*

For each pair of terms, explain how the meanings of the terms differ.

6. *pesticide* and *biological pest control*
7. *compost* and *topsoil*
8. *livestock* and *ruminant*
9. *malnutrition* and *famine*
10. *salinization* and *desertification*
11. **Concept Map** Use the following terms to create a concept map: *contour plowing*, *no-till farming*, *organic farming*, *careful irrigation*, *soil erosion*, *nutrient depletion*, and *salinization*.

Reviewing Main Ideas

12. Malnutrition can be caused by
 - a. a lack of enough Calories.
 - b. a lack of carbohydrates.
 - c. a lack of essential amino acids.
 - d. all of the above.
13. Humans need which of the following nutrients?
 - a. carbohydrates and minerals
 - b. lipids and vitamins
 - c. proteins
 - d. all of the above
14. Which of the following is *not* one of the six most produced foods worldwide each year?
 - a. potatoes
 - b. beef
 - c. rice
 - d. wheat
15. Which of the following statements about human diets in all parts of the world is true?
 - a. Most people eat pork.
 - b. An adequate diet includes carbohydrates, proteins, and fats.
 - c. Most people do not have protein in their diets.
 - d. Most people are obese.
16. Malnutrition is largely a result of
 - a. war.
 - b. soil erosion.
 - c. poverty.
 - d. salinization.
17. Which of the following is *not* found in fertile soil?
 - a. rock particles
 - b. worms
 - c. high concentrations of salts
 - d. high concentrations of organic matter
18. Which of the following is *not* a soil conservation method?
 - a. contour plowing
 - b. salinization
 - c. no-till farming
 - d. terracing
19. Which of the following statements is a disadvantage of using chemical pesticides?
 - a. Pesticides can pollute waterways.
 - b. Pests evolve resistance to pesticides.
 - c. Pesticides kill beneficial insects.
 - d. All of the above.
20. How do pesticides that regulate growth work?
 - a. They kill fleas.
 - b. They disrupt the pest's life cycle.
 - c. They attract predators of the pest.
 - d. They prevent the pest from attacking the plant by poisoning its nervous system.