**Agriculture in Society**

**Unit 3:** Plant Science in Agriculture

Unit 3 Test

**Multiple Choice**

*Directions: Circle the correct answer.*

1. What is the main purpose of crop farming?  
    A. Decoration  
    B. Pet food  
    C. Profit and resource production  
    D. Exercise
2. Which of these is an example of an agronomic crop?  
    A. Tomatoes  
    B. Corn  
    C. Tulips  
    D. Peaches
3. Agronomy is best defined as:  
    A. Studying livestock  
    B. Science of crop production and soil improvement  
    C. Landscaping design  
    D. Seed distribution
4. The top crop in Oklahoma by acreage is:  
    A. Soybeans  
    B. Hay  
    C. Wheat  
    D. Cotton
5. Wheat is a cereal crop, meaning we harvested what part of the crop for food production?  
    A. Roots  
    B. Stem  
    C. Seed   
    D. Leaves
6. What is the main use of hay?  
    A. Biofuel  
    B. Animal bedding  
    C. Livestock feed  
    D. Fabric production
7. Cotton is primarily used to create:  
    A. Biofuel  
    B. Clothing and textiles  
    C. Fertilizer  
    D. Pharmaceuticals
8. Sorghum is especially valued because it is:  
    A. High maintenance  
    B. Highly decorative  
    C. Drought and damage tolerant  
    D. Not edible
9. Soybeans are high in:  
    A. Sugar  
    B. Protein and oil  
    C. Calcium  
    D. Water content
10. Why is sunlight important for crop and plant production?:  
     A. Makes them look pretty  
     B. Warming the soil to increase the temperature  
     C. Photosynthesis  
     D. Wildlife come out during the daytime
11. Loam is considered the best soil for most crops because it:  
     A. Holds too much water  
     B. Is mostly sand  
     C. Is a balanced mix soil texture  
     D. Has no nutrients
12. Crop rotation helps improve soil health by:  
     A. Removing nutrients  
     B. Planting only one type of crop  
     C. Adding diversity and preventing disease  
     D. Preventing water use
13. A primary macronutrient that supports root growth is:  
     A. Nitrogen  
     B. Phosphorus  
     C. Potassium  
     D. Calcium
14. Horticulture includes:  
     A. Growing crops like wheat and corn  
     B. All ornamental and edible garden plants  
     C. Only tree farming  
     D. Ranch management
15. What kind of plant would likely be grown for visual appeal only?  
     A. Soybean  
     B. Zinnia  
     C. Apple  
     D. Carrot
16. Which type of plant grows best in cooler weather?  
     A. Tomatoes  
     B. Squash  
     C. Broccoli  
     D. Peppers
17. Hardiness zones help gardeners:  
     A. Choose decorative styles  
     B. Plan watering times  
     C. Select plants that survive local winters  
     D. Know when to fertilize
18. What is biotechnology?  
     A. Using robots to plant seeds  
     B. Crossbreeding animals  
     C. Using science to improve plants genetically  
     D. Designing landscape layouts
19. A GMO involves:  
     A. Weeding by hand  
     B. Painting flowers  
     C. Changing plant DNA using another species’ genes  
     D. Freezing seeds for storage

**Part 2: Matching**

*Directions: Match the plant part or concept to its function.*

|  |  |
| --- | --- |
| **Term** | **Description** |
| A. Stamen | \_\_\_ Produces pollen in a flower |
| B. Photosynthesis | \_\_\_ Process plants use to make food using sunlight |
| C. Ovary | \_\_\_ Becomes the fruit after pollination |
| D. Tiller | \_\_\_ Tool to break up and prepare soil |
| E. Loam | \_\_\_ Ideal soil texture for most crops |

**Part 3: True or False**

*Directions: Write* ***T*** *or* ***F*** *next to each statement.*

1. \_\_\_ Cotton is used mainly for livestock feed.
2. \_\_\_ Raised beds are a good gardening option for beginners.
3. \_\_\_ Sorghum is known for being drought tolerant.
4. \_\_\_ The pistil is the male part of the flower.
5. \_\_\_ CRISPR is a form of gene editing in biotechnology.

**Part 4: Short Answer / Essay**

**1.** Explain how crop rotation improves soil health and give one example of how it's done.

**2.** Describe one way biotechnology is used in agriculture. Include one benefit and one concern people might have about it.

KEY

1. C
2. B
3. B
4. C
5. C
6. C
7. B
8. C
9. B
10. C
11. C
12. C
13. C
14. B
15. B
16. B
17. C
18. C
19. C

MATCHING

A – 1

B – 2

C – 3

D – 4

E – 5

**True or False**

1. F
2. T
3. T
4. F
5. T