



## Pathway Assessment Blueprint

## Natural Resources Systems



*Test Code: 1228 / Version: 01*

## Specific Competencies and Skills Tested in this Assessment:

### General Agriculture Technical Skills

- Apply knowledge of the basics of animal systems
- Apply knowledge of the basics of plant and insect systems
- Apply knowledge of the basics of soil, water, and air systems
- Use, maintain, and store tools and equipment appropriately
- Analyze current issues in the fields of Animal Science, Natural Resources, and Agricultural Biotechnology

### Natural Resources Technical Skills

- Recognize importance of resource and human interrelations to conduct management activities in natural resources
- Understand importance and methods of protecting natural resources
- Apply scientific principles to natural resource management activities



### Academic Foundations

- Apply reading skills in an Animal Science, Natural Resources, and/or Agricultural Biotechnology environment
- Apply writing skills in an Animal Science, Natural Resources, and/or Agricultural Biotechnology environment
- Apply mathematical skills in an Animal Science, Natural Resources, and/or Agricultural Biotechnology environment
- Apply science skills in an Animal Science, Natural Resources, and/or Agricultural Biotechnology environment

### Systems

- Understand the major governing bodies and groups that impact how Animal Science, Natural Resources, and/or Agricultural Biotechnology organizations function (e.g., EPA)
- Demonstrate knowledge of economic principles as applied to Animal Science, Natural Resources, and/or Agricultural Biotechnology systems (e.g., supply and demand, profit)

## ***Specific Competencies and Skills continued:***

### **Ethic and Legal Responsibilities**

- Understand the major laws and regulations that impact the Animal Science, Natural Resources, and/or Agricultural Biotechnology industry
- Identify and practice ethical behavior in the workplace

### **Communication**

- Locate, organize, and reference written information from reliable sources to communicate with coworkers and clients
- Develop and deliver formal and informal presentations using appropriate media to engage and inform audiences
- Apply listening skills and interpret verbal and nonverbal behaviors to enhance communication with coworkers and clients
- Interpret and use tables, charts, and graphics to support written and oral communication

### **Information Technology Applications**

- Use computers and software to increase general work efficiency
- Use information technology tools specific to Animal Science, Natural Resources, and/or Agricultural Biotechnology to access and manage information (e.g., GPS)



### **Problem Solving, Critical Thinking, and Decision Making**

- Use problem solving and critical thinking skills to locate sources of information about problems and determine appropriate methods for investigating causes
- Use problem solving and critical thinking skills to determine root causes of problems and suggest solutions

### **Leadership and Teamwork**

- Exhibit leadership practices to improve production and quality of work and the work environment
- Work effectively in a team environment to improve the quality of work and the work environment

***Specific Competencies and Skills continued:***

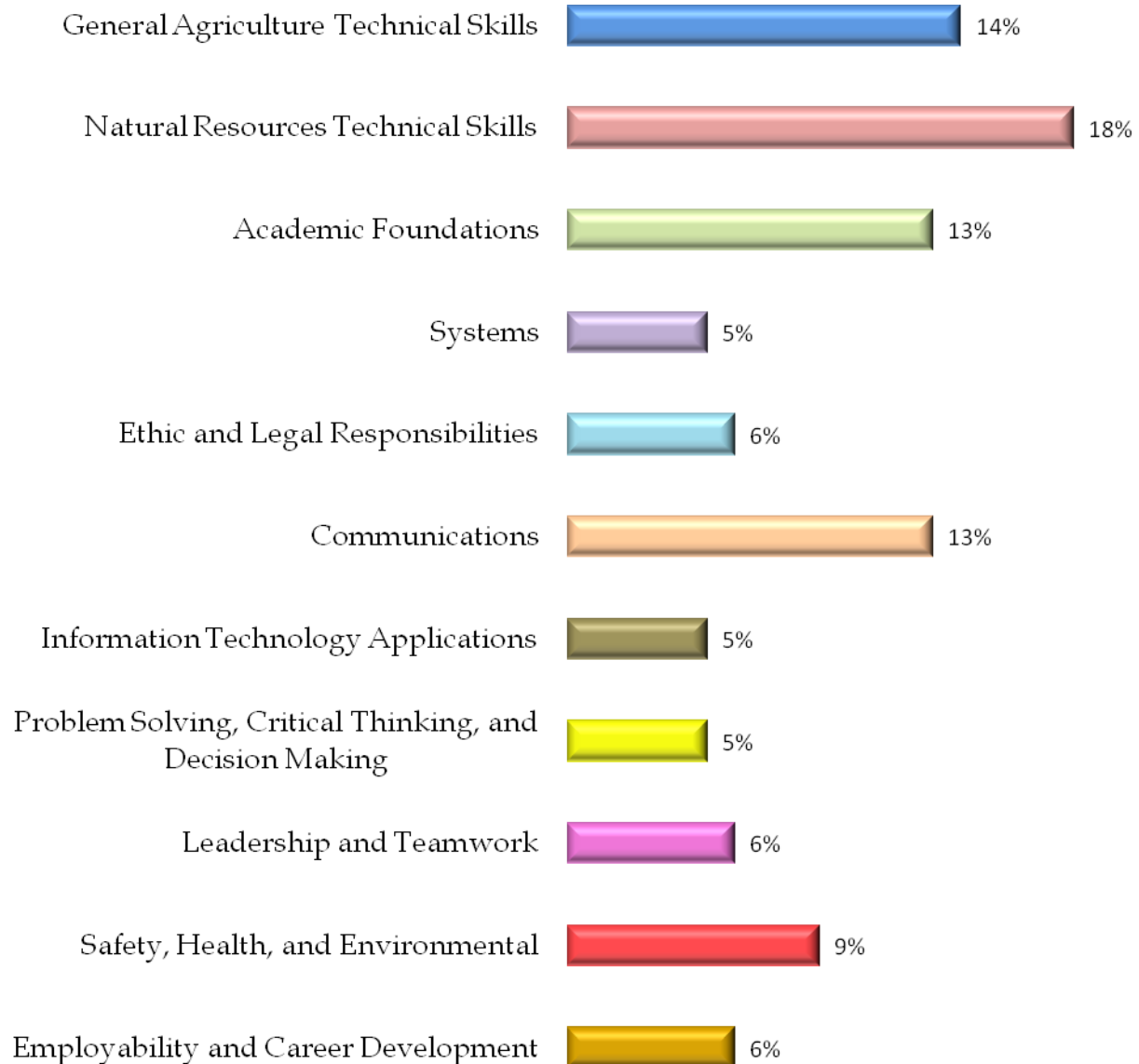
**Safety, Health, and Environmental**

- Identify and practice appropriate environmental, health, and safety procedures for Animal Science, Natural Resources, and/or Agricultural Biotechnology occupations
- Demonstrate appropriate first aid knowledge and procedures for Animal Science, Natural Resources, and/or Agricultural Biotechnology occupations

**Employability and Career Development**

- Demonstrate employability skills related to a career in Animal Science, Natural Resources, and/or Agricultural Biotechnology
- Pursue career development skills to advance in Animal Science, Natural Resources, and/or Agricultural Biotechnology



**Written Assessment:****Administration Time:** 2 hours**Number of Questions:** 113**Areas Covered:**

## Sample Questions:

**Individual state Departments of Conservation and Natural Resources in conjunction with the U.S. Department of Agriculture manage**

- A. pesticides
- B. food safety
- C. timber
- D. pet stores

**The technique used to practice water conservation in creative landscapes is called**

- A. hardscaping
- B. xeriscaping
- C. landscaping
- D. greenscaping

**An agronomist is primarily concerned with what use of soil?**

- A. construction
- B. acting as a filter for the hydraulic cycle
- C. supporting crop growth
- D. natural beauty

**The thread-like structures that exist in pairs and carry genes are called**

- A. gametes
- B. mitosis
- C. meiosis
- D. chromosomes

**A product of decaying plants or animal matter is**

- A. nitrous oxide
- B. ozone
- C. chlorofluorocarbon
- D. methane

**The purpose of a summary in a report is to emphasize**

- A. an introduction
- B. references and sources
- C. key points
- D. an autobiographical sketch

## Sample Questions (continued)

**Select the sentence below that is correctly written.**

- A. The stock was to expensive for me to buy.
- B. I think she said she worked their.
- C. Jim's patients was wearing thin by the end of the day.
- D. I left the correspondence on the manager's desk.

**Meat inspection is the governmental responsibility of the**

- A. U.S. Department of Agriculture (USDA)
- B. Department of Homeland Security (DHS)
- C. Occupational Safety and Health Administration (OSHA)
- D. Cooperative Extension Services (CES)

**It is unethical to administer \_\_\_\_\_ to healthy animals.**

- A. steroids
- B. vitamins
- C. glucose
- D. electrolytes

**Acid rain from the hydrological cycle is most harmful to the**

- A. atmosphere
- B. hydrosphere
- C. biosphere
- D. lithosphere