



Job Ready Assessment Blueprint

Production Agriculture



Test Code: 3063 / Version: 01

“Measuring What Matters”

Specific Competencies and Skills Tested in this Assessment:

Animal Science

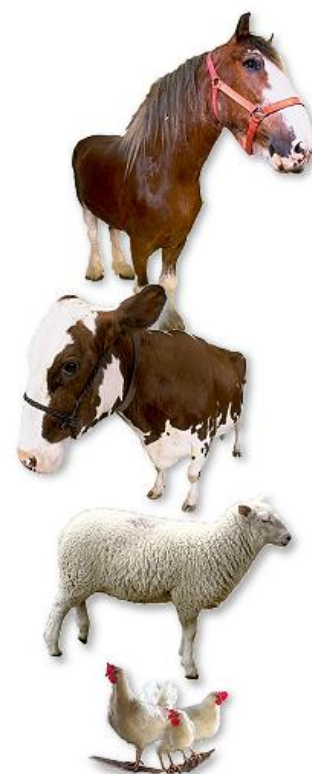
- Maintain animal health sanitation
- Describe anatomy and physiology
- Explain grading and judging
- Describe handling and shipment of animals and products
- Explain genetics and breeding
- Describe feeds and feeding
- Describe specific beef production operations, including breeds and types
- Describe specific dairy operations, including breeds and types
- Describe specific poultry operations, including breeds and types
- Describe specific equine operations, including breeds and types
- Describe specific aquaculture operations, including breeds and types
- Describe specific small animal operations, including breeds and types
- Describe specific swine operations, including breeds and types
- Describe specific sheep/goat operations, including breeds and types

Conservation and Sustainable Natural Resources

- Conserve and protect water, land, and soil resources
- Recycle and manage waste products
- Research and develop new, renewable energy sources, including biofuels

Plant Science

- Describe plant anatomy and physiology
- Describe taxonomy and plant identification
- Explain plant genetics, breeding, and propagation
- Formulate, mix, and properly handle agricultural chemicals
- Identify plant pests and practice pest control
- Identify and classify plant diseases
- Calculate fertilizer rates and costs
- Determine populations and planting rates
- Discuss harvesting and storage of crops
- Identify plant nutrient requirements



Specific Competencies and Skills continued:**Soil Management**

- Describe preparation of land for efficient cropping
- Exhibit knowledge of land judging and soil management concepts
- Identify and discuss soil tests and various amendments

Agricultural Technology

- Explain safe use and maintenance of tools and equipment
- Perform calculations and measurements used in agricultural technology
- Describe basic welding, electrical, plumbing, and carpentry practices
- Explain maintenance of agricultural and livestock containment structures
- Operate, maintain, and service engines
- Safely operate, maintain, and repair agricultural machinery

**Agri-Business**

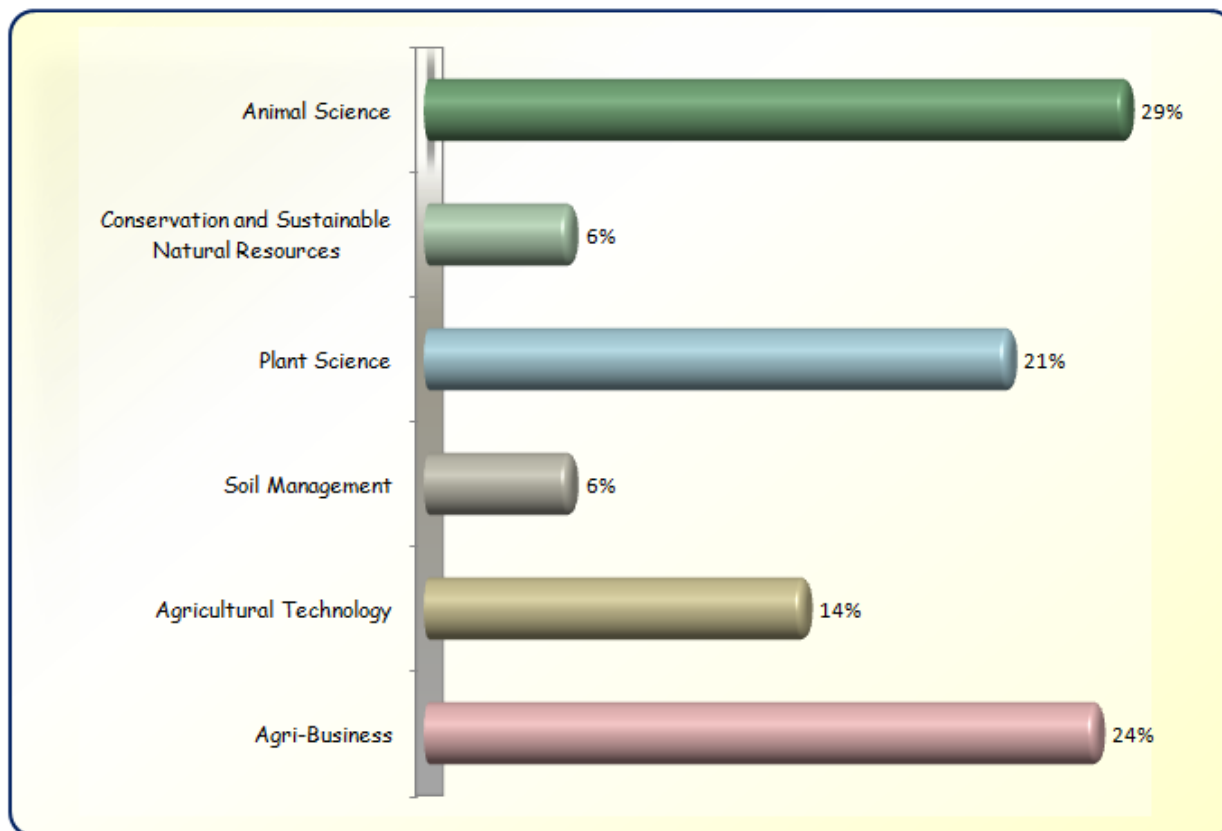
- Identify sources of credit
- Use appropriate tax management skills
- Describe types of farm businesses and enterprises, including cooperatives
- Identify assets, liabilities, and net worth
- Calculate net worth, income and expenses, and cash flow statements
- Identify fixed and variable costs
- Compute market values of livestock and costs of ownership
- Interpret and apply analysis of financial tools and recordkeeping systems
- Determine factors of risk management
- Identify marketing and distribution networks, channels, and processes
- Identify agricultural-based sales and marketing skills
- Identify principles of agri-business economics, including supply/demand
- Describe career opportunities and advancement pathways

Written Assessment:

Administration Time: 3 hours

Number of Questions: 187

Areas Covered:



Sample Questions:

An injection placed in the vein is called

- A. subcutaneous
- B. intramuscular
- C. intravenous
- D. intraperitoneal

A tap root system is found in

- A. barley
- B. wheat
- C. rice
- D. alfalfa

An alkaline soil has a pH of

- A. 2
- B. 4
- C. 5
- D. 8

Most farm accidents and injuries are caused by

- A. machinery
- B. tools
- C. chemicals
- D. carelessness

Return on investment is the longest for

- A. dairy cattle
- B. poultry (broilers)
- C. poultry (layers)
- D. beef cattle



Performance Assessment:

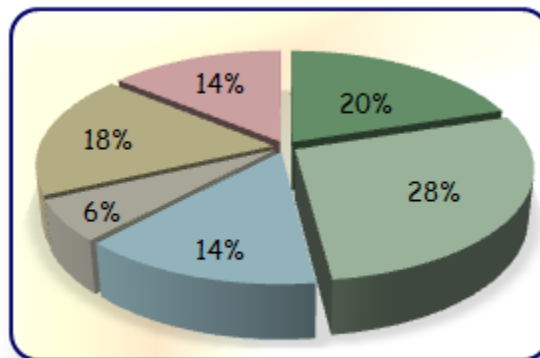
Administration Time: 3 hours and 5 minutes

Number of Jobs: 6

Areas Covered:

20% Vehicle Maintenance

Record vehicle make, model, check oil, determine if engine needs oil; record fuel gauge reading, recommended tire inflation psi, actual tire psi; check engine coolant level, determine if engine needs coolant; vehicle maintenance worksheet; return work area to original condition; and time to complete Job 1.



28% Calculate Net Worth

Identify and list current assets, intermediate assets, long term assets; calculate and list total assets; identify and list current liabilities; determine absence of intermediate liabilities; identify and list long term liabilities, calculate and list total liabilities, net worth, total liabilities, and capital; calculate and list current capital ratio, and time to complete Job 2.

14% Determine Genotypes and Phenotypes (Punnett Square)

Punnett square completion, identify four phenotypes, list the six genotypes and number of each, and time to complete Job 3.

6% Crop Leaf Identification

Crop leaf identification and time to complete Job 4.

18% Administer an Injection

Determine appropriate medication dosages, and appropriate medication to administer; select appropriate syringe, and needle size; prepare syringe, draw proper dosage; identify and prepare injection site; administer injection intramuscularly; dispose of needle and syringe; and time to complete Job 5.

14% Compute Acreage

Compute and record total acreage, corn acreage, potato acreage, and wheat acreage, and time to complete Job 6.

Sample Job: Compute Acreage

Maximum Time: 30 minutes

Participant Activity: The participant will use a diagram provided to calculate total acreage and calculate the amount of acreage that is used for corn, wheat, and potatoes.



The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!

