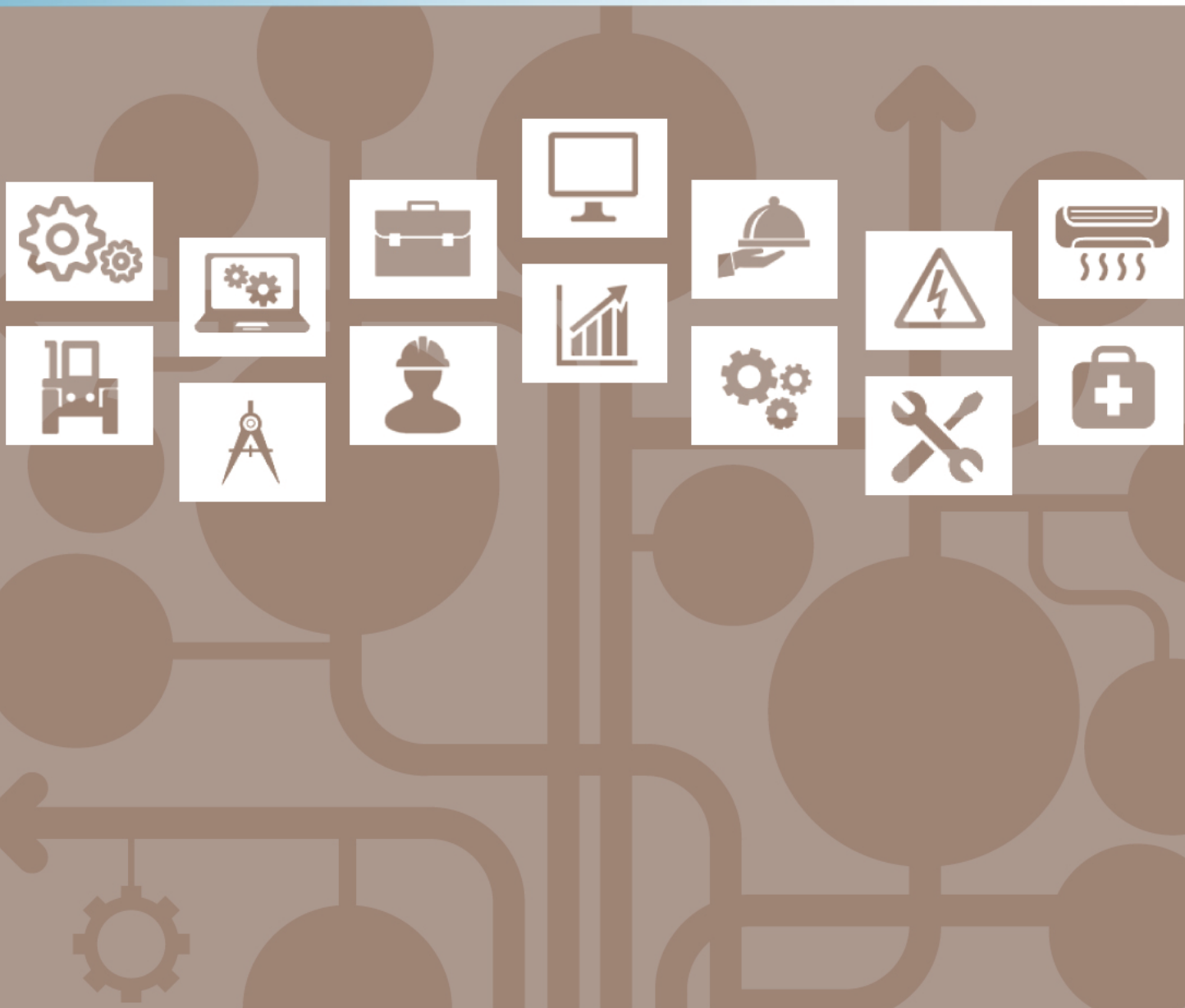


## Entry Level Assessment Blueprint

## *Small Animal Science and Technology*



## Specific Competencies and Skills Tested in this Assessment:

### Safety and Sanitation

- Maintain a safe and sanitary environment
- Identify modes of transmission/prevention of zoonotic disease
- Identify and properly handle contaminated and hazardous material and chemicals

### Animal Care Management

- Handle and restrain animals for various procedures
- Identify breeds and sex of animals (e.g., dogs, cats, rodents, rabbits, reptiles, birds)
- Feed and water animals and maintain sanitary cages
- Identify and manage care for animals at different life stages
- Gather data and maintain accurate records on animals
- Recognize and interpret animal body language
- Identify external anatomy
- Recognize issues of animal overpopulation and discuss prevention methods and benefits
- Identify training and enrichment methods and equipment



### Grooming

- Select, identify, and properly use grooming equipment
- Select and prepare shampoos and rinses
- Identify and describe other various grooming procedures and methods (e.g., ears, coat, nails, and glands)



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

### **Genetics and Reproduction**

- Define specific genetic and reproductive terminology, including sex-linked traits
- Use the Punnett Square to solve monohybrid cross, dihybrid cross, and quantitative factors
- Read and evaluate a pedigree
- Explain factors that affect reproductive health and fertility
- Identify and explain functions of reproductive organs
- Explain the role of hormones and factors that affect them
- Explain different phases of the reproductive/estrous cycle
- List signs of parturition and manage care in mammals and reptiles

### **Management of Small Animal-Related Businesses**

- Identify professional communications and service
- Schedule appointments and maintain appointment book
- Record/file client data
- Perform and maintain inventory and financial records
- Demonstrate business mathematics

### **Animal First Aid**

- Identify medical terminology, equipment, and supplies
- Explain arterial and venous bleeding and identify pressure points
- Identify symptoms and treatment of shock
- Describe appropriate ways of approaching an injured animal
- Identify various types of bandages and appropriate applications
- Perform physical assessment/triage, including TPR
- Describe the ABCs of CPR procedures
- Prepare slides and operate various types of microscopes
- Operate scales and weigh/measure animals properly
- Identify and describe routes of medication administration
- Identify surgical instruments and prepare surgical packs
- Calculate dosage rates and conversions



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

### **Health and Disease Control**

- List characteristics of a healthy animal
- Identify common internal and external parasites
- Perform examinations for internal and external parasites (e.g., fecal exams, ear cytology)
- Explain the differences between infections and non-infectious diseases (e.g., viral, bacterial, fungal)
- Describe the body's response when exposed to disease (e.g., immunity, antibody/antigen)
- Explain how diseases are transmitted and prevention methods
- Discuss vaccination protocols



### **Nutrition**

- Identify and explain functions of digestive system organs
- Explain digestive characteristics of cecal fermenters, monogastrics, and avian species
- List the six nutrient groups and their function and sources
- Determine type of food to feed different animal species
- Read and interpret feed labels and follow appropriate storage methods
- List diseases associated with nutritional deficiency and/or toxicity

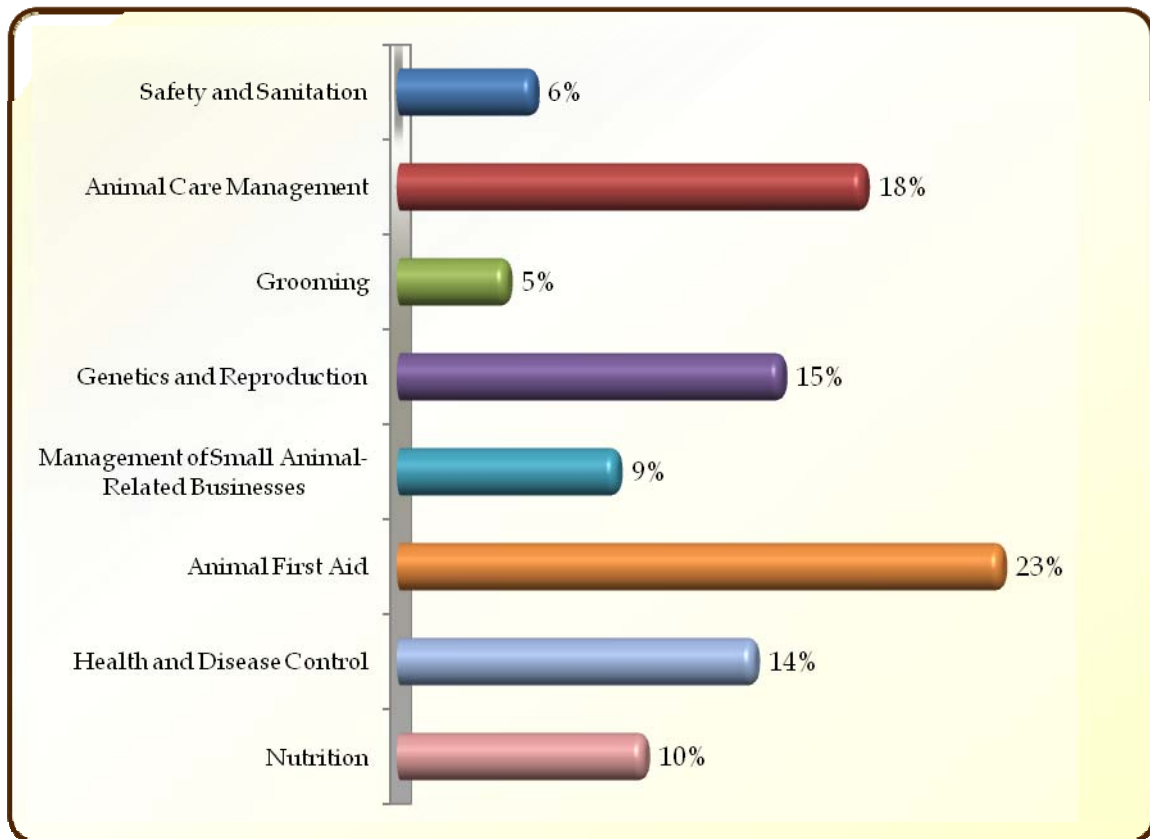


## Written Assessment:

**Administration Time:** 3 hours

**Number of Questions:** 196

## Areas Covered:



*Small Animal Science and Technology (continued)*

**Sample Questions:**

Ringworm is an example of a/an \_\_\_\_\_ hazard.

- A. physical
- B. environmental
- C. zoonotic
- D. parasitic

Cats should be restrained by the

- A. legs
- B. hips
- C. muzzle
- D. scruff

Stop the bleeding of a nail by using

- A. cold water
- B. styptic powder
- C. cotton gauze
- D. a bandage

A female cat is called a

- A. boar
- B. queen
- C. bitch
- D. sow

When new stock comes in, the current stock should be

- A. left alone
- B. thrown out
- C. given away to customers and staff
- D. rotated to the top/front

A dog has ingested an unknown toxin. The immediate first-aid treatment is to

- A. induce vomiting by giving pink bismuth
- B. transport to a veterinarian immediately
- C. induce vomiting by giving hydrogen peroxide
- D. let the dog excrete naturally

***Small Animal Science and Technology (continued)***

Why do parasite eggs come to the top during a fecal flotation?

- A. They are attracted to light.
- B. They swim to the top.
- C. They are more dense than the solution.
- D. They are less dense than the solution.

Which of the following needles is the largest?

- A. 18 gauge
- B. 22 gauge
- C. 25 gauge
- D. 30 gauge

An example of a giant rabbit breed is

- A. Holland
- B. Lionhead
- C. Dutch
- D. Flemish

The primary function of the small intestine is to

- A. break down food by muscular movement
- B. add lubricating mucus
- C. absorb water from undigested food
- D. digest and absorb carbohydrates, fats, and proteins

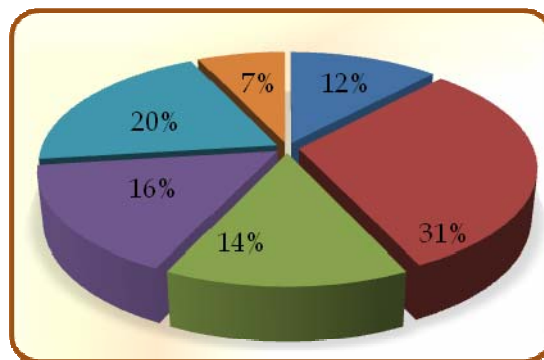
## Performance Assessment:

**Administration Time:** 2 hours and 25 minutes

**Number of Jobs:** 6

### Areas Covered:

- 12%      **Identify Tools and Equipment**  
*Participant will identify and correctly spell tools and equipment used in small animal science.*
- 31%      **Proper Restraint and Sex Determination of Small Animals**  
*Participant will remove small animals 1, 2, and 3 from a cage, pick it up, restrain it, determine its sex, and return it back to the cage.*
- 14%      **Identify Parasites**  
*Participant will place slides on a microscope, properly focus them, identify internal parasite eggs, and identify external adult parasites.*
- 16%      **Fill Syringes**  
*Participant will select and assemble syringes and needles and draw up fluids.*
- 20%      **Canines: Safety, Handling, Restraint, and External Anatomy**  
**Identification**  
*Participant will lift and support and properly place the dog on the table, restrain the dog for blood draw, obtain pulse and respiration and identify external anatomy.*
- 7%      **Determine Proper Diet for Animals**  
*Participant will correctly match diets to animals.*





<b>Sample Job:</b>	Identify Tools and Equipment
<b>Maximum Time:</b>	20 minutes
<b>Participant Activity:</b>	Identify and correctly spell each of the displayed pieces of equipment used in small animal science.

