Veterinary Science

Junior Division

FFA

Overview

Revised:11/24

The purpose of the veterinary science career development event is to promote college and career readiness by providing opportunities to develop knowledge and demonstrate practical skills in the field of veterinary science.

Eligibility

This event is open to all middle school FFA chapters and FFA members in good standing. Members that have participated in a previous national event or previous state winning teams in this area are ineligible. This event will be held during the June CDE Week.

Event Procedure

1. The event will be a team event consisting of four students. All four scores will count towards the team total.
2. It is required that participants wear an FFA T Shirt and khaki style long pants and closed toe shoes. Members must provide their own clipboard, pencil, nonprogrammable calculator. If any other items that will be required for practicums that need to be provided for sanitation reasons will be announced at least a month in advance.
3. Any participant in possession of any electronic device including smart watches in the preparation room or in the CDE event area is subject to disqualification.

Event Format

Team Event- Math Applications Practicum – 100 points The number of practicum questions will vary based on the type of activity that is assigned. Participants will have 30 minutes to complete the entire math application practicum. Questions may include conversions, dose calculations, dilutions, cost calculations and invoices. There will be 10 questions for 10 points each. The conversion sheet will be provided at the state or national level. These questions will be focusing on animal care and handling. A list of potential questions can be found in this handbook under math resources.

Individual Activities

A. Written Test (100 points) 30 minutes– The test will consist of 50 multiple choice questions (2pts each) designed to determine the member's broad understanding of the veterinary science field. Each question is worth two points. This year's questions will come from the last three avail- able years of the National FFA Veterinary Science CDE exam Topics for the exam may include: animal care and handling.

B. Identification—individual- (50 points) 30 minutes The identification portion will consist of animal breeds. There will be 25 specimens (two points each). The breeds will come from the National FFA list. Breeds will be high quality pictures animals.

C. Practicums. (80 points)—Individual- One handling and restraining (30 points each) and one clinical (50 points each) per year, practicums will rotate each year for 3 years. Students must demonstrate the practicum and orally describe each step to judge. Stuff animals will be used for these practicums.

a. 2024– Administrating Oral Medication & Applying a Nylon Muzzle

b. 2025- Administering an Aural Medication & Restraint of a Rabbit

c. 2026- Administering Ophthalmic Medication & Haltering a Ruminant

SCORING

Event	Individual Points	Team Points
Identification (2 pts each)	**50 Points**	**200 Points**
Practicum (2) (50 points for each clinical 30 points for each handling)	**80 Points**	**240 Points**
Written Exam (2 pts each)	**100 Points**	**400 Points**
Team Activity-Math Application Practicum (10 pts each)	**N/A**	**100 Points**
Maximum Total Points	**230 Points**	**1020 Points**

Tie Breaker

A. Team tiebreakers will be settled in the following order:

1. Combined individual identification total score
2. Combined Math Practicum Score

B. Individuals tiebreakers will be settled in the following order:

1. Identification total score

2. Combined Practicum scores

Awards

Awards will be presented to individuals and teams based upon their rankings at the State Fair Breakfast.

References

This list of references is not intended to be all-inclusive. Other sources may be utilized, and teachers are encouraged to make use of the very best instructional materials available. The following list contains references that may prove helpful during event preparation:

Written Exam:

Small Animal Care and Management. Warren. ISBN: 978-1-4180- 4105-2

An Illustrated Guide to Veterinary Medical Terminology. Romich. ISBN: 978-1-4354-2012-0

Identification:

Veterinary Instruments and Equipment: A Pocket Guide. Sonsthagen. ISBN: 978-0323032032
http://loudoun.nvcc.edu/vetonline/vet121/instruments.htm

https://www.spectrumsurgical.com/product/10-0227/SurgicalInstrument-Flash-Cards.php

American Kennel Club – http://www.akc.org/index.cfm

Cat Fanciers' Association – http://www.cfa.org/client/breeds.aspx

American Rabbit Breeders Association – http://www.arba.net/

Math Practicum:

Medical Mathematics and Dosage Calculations for Veterinary Professionals. Bill, Robert. ISBN: 978-08138263

Potential Math Problems- please note that these problems are subject to changes and should be used as a guide for students to see the types of problems they may encounter during the contest

Monica Maple has a female Bulldog that weighs 55 pounds, and currently has 7 puppies nursing that weigh approximately 14 pounds each. The Veterinarian has prescribed D-Worm 60, liquid wormer to prevent against roundworms. The female and puppies all need to be dewormed with the same medication. The dosage rate is 5 mL/2.0 kg of body weight. How many total mL of D-Worm 60 would Monica need for the female and the puppies?

1. 110 ml
2. 245 ml
C. 175 ml
D. 385 ml

Sara Smith is an animal care assistant at Bison Animal Hospital and is instructed to dilute Bioquat 20 disinfect to a 1 pint spray bottle. The solution has a dilution of 1 oz to 2 gallons of water. How many milliliters of Bioquat 20 should she mix with a pint of water?

1. 1.88 ml
2. 3.75 ml
C. 2.40 ml
D. 6.69 ml

Ian Smart took a temperature reading of his cat Brutus to determine if he had a fever. The temperature gauge reading was 38.7 Celsius. What does this reading convert to in Fahrenheit?

a. 70.7 F
b. 101.66 F
C. 99.66
D. 102.92

Bill Bison owns 55 a pound Siberian Husky who is prescribed to a medicine dosage at 35 mg/kg for 5 days to treat a preexisting condition? How many mgs will the Siberian Husky need per day?

A. 866 mg
B. 4330 mg
C. 1925 mg
D. 9625 mg

To prepare for disinfection of hard non-porous surfaces against canine parvovirus, mix a solution of Clorox® Regular-Bleach in 2.5 gallons of water at the rate of ¾ cup of bleach per 1 gallon of water. What is the volume of bleach added to the 2.5 gallons of water?

1. 30 fl. oz
2. 15 fl. oz
3. 1 ¾ cups
4. 1 ½ cups and 2 tbsp

You have taken the body temperature of a dog that reads 38 degrees Celsius. The owner of the dog does not understand Celsius and ask you to convert it to Fahrenheit. What is the converted

body temperature?

1. 100.4° F
2. 104° F
3. 102.5° F
4. 98.8° F

The veterinarian informs you that the patient has a bite wound and will require antibiotics. A common antibiotic, cefazolin, is administered to help fight infection. Cefazolin is administered at a dosage of 22 mg/kg. The patient weighs 44 pounds. What is the dose of cefazolin for this animal?

1. 0.44 mg
2. 4.4 ml
3. 440 mg
4. 968 mg

How many milliliters (ml) are in 9 ounces (oz) of liquid?

1. 2.70 ml
2. 270 ml
3. 900 ml
4. 9000 ml

The veterinarian prescribes Panacur to a 32 kg Doberman Pinscher named Harvey at a dosage of 1cc/15lb with the directions to repeat this dose once per day for three days. How many mls of Panacur will be administered per dose?

1. 2.13 cc
2. 2.78 cc
3. 4.69 cc
4. 32 cc

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Tommy the Cavy (Guinea pig) comes in for a routine checkup. Tommy weighs 1.6 kg and had a body temperature of 39.5 Celsius. As the vet tech you must convert his weight and temperature to pounds/Fahrenheit for the owner. What is Tommy's weight and temperature in pounds and Fahrenheit? Round to the nearest tenth.

102.1 degrees F and 1.6 lbs.

1. 103.1 degrees F and 3.5 lbs.
2. 102.1 degrees F and 3.5 lbs.
3. 103.1 degrees F and 1.6 lbs.

George brings his 4 kg iguana into the clinic for an infection. The veterinarian instructs the technician to administer an injection of Baytril. Baytril's dosage is 4mg/lb of body weight. How many milliliters of Baytril should the technician administer, if the concentration of the drug is 25 mg/ml? Round your answer to the nearest 10th.

1. 1.0 ml
2. ½ ml
3. 1.4 ml
4. 1.8 ml

You purchase a box of 25 heartworm tests for your clinic for $400.00 (wholesale). Your mark up to your patients is 150% per test. How much will your client pay for having two dogs tested?

A. $16.00

B. $32.00

C. $24.00

D. $48.00

ADD RUBRICS BELOW