

2025 Louisiana FFA State Veterinary Science CDE Math Practicum

\_\_\_ 1. How many total mg are in the bottle pictured below?



- a. 75 mg
- b. 2,250mg
- c. 4,500 mg
- d. 30 mg

\_\_\_ 2. A 66-pound Dalmation named Brooke is prescribed metronidazole at 50 mg/kg PO SID for 5 days to treat for giardiasis. How many mg will Brooke need per day?

- a. 250 mg
- b. 1500 mg
- c. 500mg
- d. 1250mg

\_\_\_ 3. The veterinarian prescribes IV fluids for a calico kitten with diarrhea. She prescribes 180 mL per 12 hours using 60 drop/mL IV administration set. What is the drip rate in drops per minute?

- a. 12 drops
- b. 6 drops
- c. 18 drops
- d. 15 drops

\_\_\_ 4. The office manager at the River Park Veterinary Clinic is ordering supplies for the clinic. She purchases a case of 50 dental bones at \$1.00 each. How much total profit on all dental bones will the clinic make with a 60% mark-up?

- a. \$90
- b. \$60
- c. \$15
- d. \$30

\_\_\_ 5. Kasi, a 40-pound, Boston Terrier, is brought into the veterinary hospital. What is Kasi's weight in kilograms?

- a. 182 kg
- b. 18.2 kg
- c. 17.5 kg
- d. 3.95 kg

\_\_\_ 6. A customer has fourteen feeder pigs that weigh approximately 100 pounds each. The veterinarian has prescribed SwineGuard™ Pour on for Swine to control mange mites and lice. For optimum control, two treatments at a 14-day interval are recommended. Dosage rates are in the table below. What is the total dose needed to treat the fourteen feeder pigs for one treatment?

Apply across back of head and ears, then apply down midline of neck, over shoulders	
Dose (ml)	Weight (lb)
3	100
6	200
9	300
12	400
15	500 & over

- a. 42 ml
- b. 3 ml
- c. 18 ml
- d. 6 ml

\_\_\_ 7. A client has brought in a llama that has overheated in the sun. Dr. Ducote has asked you to take the temperature of the llama while they prepare fluids for treatment. The temperature of the llama reads 38.8 degrees Celsius. What is the temperature in Fahrenheit?

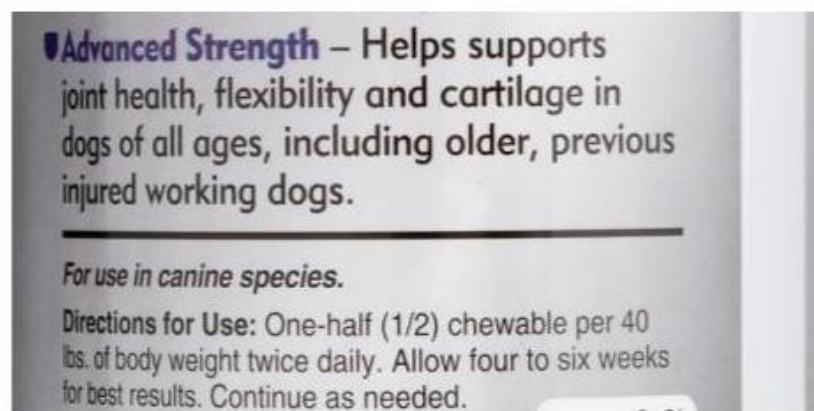
- a. 101.8 degrees F
- b. 103.7 degrees F
- c. 95 degrees F
- d. 98.6 degrees F

\_\_\_ 8. A client has asked you to help determine the most economical type of feed to feed their replacement heifers. They have two types of feed, one is a pelleted feed that is 15% protein, recommended to feed 6 lb. per day and the other is a textured feed that is 14% protein, recommended to feed 8 lb. per day. A 2,000 pound load of the pelleted feed costs \$478.00. The textured feed is sold by the 50 pound bag for \$5.35 per bag. Which feed is the most economical for the client?

- a. The pelleted feed
- b. They would cost the same
- c. The textured feed
- d. There is not enough information

### Scenario for Questions 9-10

Dr. Voinche has prescribed Nutri-Vet® Hip & Joint Chewables for Dogs to a client for their 80 pound Great Pyrenees dog named Jules. A large bottle of chewables contains 150 tablets and cost \$49.00?



\_\_\_ 9. How many chewable tablets will it take to treat Jules for 30 days?

- a. 30 tablets
- c. 15 tablets

b. 120 tablets

d. 60 tablets

\_\_\_10. What would be the average cost per day to treat Jules with the Nutri-Vet<sup>®</sup> Hip & Joint Chewable Tablets?

a. \$0.49 per day

c. \$0.33 per day

b. 0.66 per day

d. \$1.32 per day

\_\_\_11. A client has four horses, a 400 pound Welsh pony, a 750 pound Appaloosa mare, a 900 pound Thoroughbred and a 950 pound Tennessee Walking Horse. The Veterinarian has prescribed Rapid Flex<sup>®</sup> Fast Acting Joint Protection supplement for the horses. How many total scoops per day would be required during the Maintenance Period for all four horses?



DIRECTIONS FOR USE	
<i>Initial Period</i>	
Using the enclosed scoop, administer as follows for the first three (3) weeks:	
Less than 800 lb body weight	1 scoop per day
800 to 1,200 lb body weight	2 scoops per day
More than 1,200 lb body weight	3 scoops per day
<i>Maintenance Period</i>	
Using the enclosed scoop, administer as follows after the initial period:	
Less than 800 lb body weight	1/2 scoop per day
800 to 1,200 lb body weight	1 scoop per day
More than 1,200 lb body weight	1 1/2 scoops per day

a. 3 scoops per day

c. 6 scoops per day

b. 2 scoops per day

d. 12 scoops per day

\_\_\_12. A 12-pound Bengal cat named Lillian is prescribed Metacam<sup>®</sup> Oral Suspension for Cats at 0.05 mg/kg per day for two days as an anti-inflammatory. How many total mg will Lillian need for the prescription?

a. 547 mg

c. 1.3 mg

b. 32.6 mg

d. 0.54 mg

### Scenario for questions 13-14

The local clinic you work in offers dog boarding services and has the ability to accommodate the specific needs of each pet and family.

The daily rates for 8 to 24 hour boarding are:

Under 20 lb. - \$15.00

20-50 lb. - \$18.00

Over 50 lb. - \$22.00

Dogs can be walked for an additional fee of \$4.00 per dog per day. Two or more dogs in the same kennel receive a 10% discount on the total bill for their boarding services.

\_\_\_ 13. Using the scenario above, a client has a Papillon dog that is 4 years old and weighs 8.9 pounds and needs to be boarded for three days. The owner requests that the dog be walked all three days. What is the total charge for all boarding services?

- a. \$45.00
- b. \$54.00
- c. \$57.00
- d. \$66.00

\_\_\_ 14. Using the scenario above, a client has two dogs that need to be boarded for two days. The dogs weigh 28 pounds and 47 pounds. The client is ok with boarding the two dogs in the same kennel, and has requested that both dogs be walked each day. What is the total charge for all boarding services?

- a. \$72.90
- b. \$79.20
- c. \$48.30
- d. \$148.30

\_\_\_ 15. To prepare for disinfection of hard non-porous surfaces against canine parvovirus, mix a solution of Clorox Regular-Bleach in 4 gallons of water at the rate of  $\frac{3}{4}$  cup of bleach per 1 gallon of water. What is the volume of bleach added to the 4 gallons of water?

- a. 2  $\frac{1}{4}$  cups
- b. 2  $\frac{1}{2}$  cups
- c. 3 cups
- d. 3  $\frac{1}{2}$  cups

\_\_\_16. How many milliliters (mL) are in 8 ounces of liquid?

- a. 225 mL
- b. 250 mL
- c. 275 mL
- d. 300 mL

\_\_\_17. How many milliliters (mL) are in 2 cups of liquid?

- a. 450 mL
- b. 350 mL
- c. 250 mL
- d. 500 mL

### **Scenario for Questions 18-20**

A client has a herd of 25 purebred Hampshire sheep and is projecting that they will have 40 lambs born during the 2016 lambing season. The vet recommends the farmer administer CD-T toxoid vaccine to help prevent clostridial diseases in the sheep. Recommended doses are one dose of 2 mL per adult ewe, and two doses of 2 mL per lamb to be given at 2 weeks and 6 weeks of age.

\_\_\_18. Using the scenario above, Assuming the farmer wants to purchase all of the medicine at once, how many mL of CD-T toxoid vaccine should you prepare for the client?

- a. 210 mL
- b. 240 mL
- c. 260 mL
- d. 300 mL

\_\_\_19. Using the scenario above, how many mL of CD-T toxoid vaccine is required just to vaccinate the adult ewes in the flock?

- a. 25 mL
- b. 50 mL
- c. 75 mL
- d. 45 mL

\_\_\_20. Using the scenario above, if the farmer waits to purchase the CD-T toxoid vaccine until all of the lambs are born and he actually has 52 lambs born, how many mL of CD-T toxoid vaccine would be needed for the total herd?

- a. 52 mL
- b. 104 mL
- c. 208 mL
- d. 258 mL

## Key

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

