

**2013 Veterinary Science CDE
Math Practicum**

Question #1 [10 points]

A relief veterinarian works at four different animal hospitals, during holidays, in 2012 with varying salaries as follows:

Hospital	Hours	Salary
A	68	\$1938
B	45	\$1080
C	72	\$1872
D	56	\$1624

He is trying to determine in which two hospitals he will continue working in 2013. Analyze the salaries to find who offers him the best two salaries.

- A. A and B
- B. A and D
- C. B and C
- D. B and D

Question #2 [5 points]

To prepare for disinfection of a cattle stall against Bovine Viral Diarrhea, mix a solution of an alkyl ammonium chloride solution in 6 gallons of water at the rate of $\frac{1}{2}$ cup of alkyl ammonium chloride per 1 gallon of water. What is the volume of alkyl ammonium chloride mixed in 6 gallons of water?

- A. 3 ounces
- B. 24 ounces
- C. 2 cups
- D. $2\frac{1}{2}$ cups

Question #3 [5 points]

The veterinary assistant records the body temperature of the miniature horse at 102.6 degrees Fahrenheit. What is the temperature in Celsius?

- A. 32.3° C
- B. 36.4° C
- C. 39.2° C
- D. 39.6° C

Question #4 [5 points]

The veterinarian requests you to take a weight on a sick miniature pig. You record the weight as 48 pounds. What is the converted body weight in kilograms for the correct drug dosage of 5 mg per kg?

- A. 21.8 kg
- B. 28.1 kg
- C. 105.6 kg
- D. 106.5 kg

Question #5 [10 points]

A 45 pound Border Collie mix comes into your clinic and is prescribed Amoxicillin for an infection. The veterinarian instructs you to dispense the Amoxicillin based on a dosage of 9 mg per kg. How much Amoxicillin should the dog receive per dose?

- A. 0.184 mg
- B. 1.84 mg
- C. 18.4 mg
- D. 184 mg

Question #6 [5 points]

The veterinarian in the previous question (Question #5) has prescribed the 100 mg tablets BID for 14 days for the 45 pound Border Collie. How many tablets are needed?

- A. 40
- B. 56
- C. 65
- D. 70

Question #7 [10 points]

The veterinarian has requested that you take a 1.5L 20% strength solution and combine it into a 3.0 L 12.5% strength of the same type of solution. When finished, you will have 4.5L of the solution with _____ percent?

- A. 10%
- B. 13%
- C. 15%
- D. 18%

Question #8 [10 points]

The veterinarian prescribes IV fluids for a German Shorthair Pointer. He prescribes 300 mL of IV fluid in 1 hour using 15 drops/mL IV administration set. What is the drip rate in drips per unit of time?

- A. 5 drips per minute
- B. 20 drips per minute
- C. 50 drips per minute
- D. 75 drips per minute

Question #9 [10 points]

In preparation for surgery, the veterinarian requests that you prepare a syringe of Ketamine for the 48 pound boa constrictor. The dose is 25 mg per kg with a bottle concentration of 250 mg per mL. How many mL are required?

- A. 0.02 mL
- B. 0.22 mL
- C. 2.2 mL
- D. 10.56 mL

Question #10 [10 points]

A 1200 pound horse is given Banamine for colic pain. If the dosage is 1.1 mg per pound IV and the solution is 50 mg per ml, how much should the horse receive?

- A. 12 mL
- B. 12 mg
- C. 26.4 mL
- D. 26.4 mg

Question #11 [10 points]

A veterinarian prescribes Prednisone for a 13 pound cat. She prescribes 0.5 tablet BID for 3 days, 0.5 tablet SID for 3 days, and 0.5 tablet every other day for 3 more treatments. How many tablets are needed to fill this prescription?

- A. 3
- B. 4
- C. 5
- D. 6

Question #12 [10 points]

Your dog weighs 142 pounds and needs topical flea control medication. Refer to the chart below to determine the most cost effective purchase per dose:

Size of dog	1 dose	3 doses	6 doses
1-22 pounds	\$15	\$42	\$79
23-44 pounds	\$17	\$45	\$83
45-88 pounds	\$19	\$47	\$85
89-132 pounds	\$21	\$49	\$90

- A. 1 dose package of 1-22 pounds and 1dose package of 89-132 pounds
- B. 3 dose package of 1-22 pounds and 3 dose package of 89-132 pounds
- C. 6 dose package of 1-22 pounds and 6 dose package of 89-132 pounds
- D. 6 dose package of 23-44 pounds and 6 dose package of 45-88 pounds