

2016 Veterinary Science Math Practicum

Question #1 (5 points)

Dr. Quinn asks her veterinary assistant to weigh the ewes as they come through the scales on the farm to properly medicate the sheep for worms. The assistant forgets to change the scales to the English System. The first three ewes come through and the weight recorded is 80 Kg, 120 Kg, and 126 Kg. What is their weight in pounds?

- A. 198.00 lbs, 176.00 lbs, 277.20 lbs
- B. 367.40 lbs, 268.70 lbs, 277.20 lbs
- C. 237.60 lbs, 264.00 lbs, 198.00 lbs
- D. 176.00 lbs, 264.00 lbs, 277.20 lbs

Question #2 (5 points)

Sean contacts his veterinarian to treat the above ewes with a dewormer. Dr. Quinn suggests safeguard for the treatment. Safeguard dosage is 0.6 mL per 25 lbs. How many ml of safeguard will Sean need to treat the three ewes?

- A. 19.4 mL
- B. 17.2 mL
- C. 24 mL
- D. 9 mL

Question #3 (5 points)

Sean's dad wants to know how much it will cost to properly medicate the ewes. The cost of a 500 ml bottle is \$410.00. How much will it cost to medicate the three Ewes?

- A. \$18.60
- B. \$23.80
- C. \$14.10
- D. \$32.60

Question #4 (5 points)

Dr. McPherson suggests to Lorena to use Fish Mox 250mg to combat a bacterial infection on her Koi fish. Lorena owns a 250 gallon tank. How many capsules does Lorena need if each capsule is 250 mg and you need to dissolve one capsule per 10 gallons of water?

- A. 16
- B. 25
- C. 15
- D. 31

Question #5 (5 points)

The animal care assistant at the Cat Clinic is instructed to dilute Bioquat 20 disinfectant to a quart spray bottle. The solution has a dilution of 1 oz to two gallons of water. How many milliliters of Bioquat 20 do you mix with a quart of water? (1 ounce is equivalent to about 30 mL)

- A. 0.339 mL
- B. 13.39 mL
- C. 4.39 mL
- D. 3.75 mL

Question #6 (5 points)

Bambino brings his 15 kg tortoise into the clinic with an infection. The veterinarian instructs the technician to administer an injection of Baytril. Baytril's dosage is 10 mg/Kg of body weight per day. How much Baytril should the technician administer, if the concentration of the drug is 50 mg/mL?

- A. 180 mg
- B. 3 mL
- C. 45 mg
- D. 13 mL

Question # 7 (5 points)

A Farm manager was instructed by his veterinarian to administer Naxcel to a group of 50 feeder pigs weighing 32 Kg each. The dose for feeder pigs is 1 mL per 35.2 pounds. How many milliliters of Naxcel will the manager need?

- A. 100
- B. 32
- C. 10
- D. 352

Question #8 (5 points)

Using the information above, how much did the manager pay for the Naxcel used in the treatment. The drug treatment is given every 24 hours, during a 72 hour period. Naxcel 4 gm is reconstituted in 80 ml of sterile water. The cost of the 4gm Naxcel is \$79.00 per bottle.

- A. \$79.00
- B. \$316.00
- C. \$240.00
- D. \$320.00

Question #9 (5 points)

A cat was on a 25 mg of prednisone per day dose last week, and then it was bumped to 75 mg per day. What percentage increase of dose is this?

- A. 100 %
- B. 200 %
- C. 300 %
- D. 75 %

Question # 10 (5 points)

What fraction represents this increase?

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

Question #11 (10 points)

The office manager at Adobe Veterinary Clinic is ordering supplies for the clinic. He Purchases a case of twelve slip-on leashes at \$6.00 each. How much total profit on all leashes will the clinic make with a 50 % mark-up?

- A. \$72.00
- B. \$108.00
- C. \$36.00
- D. \$3.00

Question #12 (5 points)

Using the following feeds, calculate which feed source is the most economical, per day?

- A. 50 pound Purina for Turkey poults (18% Protein) at \$31.99/bag; feed 1#/day.
- B. 25 pound Ace for turkey poults (16% Protein) at \$21.95/bag; feed 1#/day.
- C. 50 pound Cargill for Turkey poults (17% Protein) at \$20.99/bag; feed 1#/day.
- D. 25 pound ADM for Turkey poults (21% Protein) at \$24.95/bag; feed 1#/day.

Question #13 (10 points)

A 100 Kg Llama is 8% dehydrated. How much is the fluid deficit in mL?

- A. 8000 mL
- B. 17.6 mL
- C. 3520.0 mL
- D. 220.0 mL

Question #14 (5 points)

Space requirements for Horses in Building (Minimum)

Size	Tie Stall		Box Stall Size
Pony	9' x 9'		3' x 6'
Stallion	14' x 14'		2-3 acre paddock for exercise
Mare or Gelding	10' x 10'	Small	
	10' x 12'	Medium	5' x 9'
	12' x 12'	Large	5' x 12'
Brood Mare	12' x 12'		
Foal to 2-years	10' x 10'	Average	4' x 9'
	12' x 12'	Large	5' x 9'

What is the minimum space requirements for a herd of 20 Medium size Geldings both Box Stall and Tie Stall?

- A. 200' x 240'; 100' x 180'
- B. 80' x 80'; 100' x 160'
- C. 180' x 180'; 60' x 120'
- D. 280' x 280'; 80' x 180'

Question # 15 (10 points)

A 110 pound Nubian Goat is to be given 1 Liter infusion over a 24 hour period. The set used delivers 25 drops per ml. What drip rate is needed?

- A. 1 drop every 1.67 seconds
- B. 1 drop every 3.46 seconds
- C. 1 drop every 11.6 seconds
- D. 1 drop every 6.67 seconds

Question #16 (10 points)

An angus market steer weighing 792 pounds needs to be treated with a drug at a dose rate of 2 mg/Kg/day. The solution available is 9%. Calculate the volume in ml of the daily injection to give the correct dose.

- A. 32 ml
- B. 16 ml
- C. 8 ml
- D. 9 ml