

2015 Veterinary Science Math Practicum

Question #1 (10 points)

Dr. Mann asks her veterinary assistant to weigh the cows as they come through the scales on the dairy farm to properly medicate the cattle. The assistant forgets to change the scales to metric. The first three cows come through and the weight recorded is 1238 pounds, 1487 pounds, and 1163 pounds. What is their weight in kg?

- A. 562.72 kg, 1239.17 kg, 484.58 kg
- B. 562.72 kg, 675.91 kg, 528.64 kg
- C. 1031.67 kg, 675.91 kg, 528.64 kg
- D. 619 kg, 708.1 kg, 528.64 kg

Answer B

Question #2 (10 points)

Alex contacts the veterinarian to treat his prize Holstein that weighs 545 kg. Dr. Shean diagnoses the cow with metritis. She asks you to obtain the Excenel® and says the dose is 2 ml per hundredweight. How many mL would you draw up for the veterinarian?

- A. 27 ml
- B. 6 ml
- C. 24 ml
- D. 11 ml

Answer: C

$545 \times 2.2 = 1,199 \text{ lbs.}$ $1,199/100 = 11.99 \text{ hundredweights}$ $11.99 \times 2 = 23.98 \text{ ml}$ rounded to nearest ml = 24 ml

Question #3 (10 points)

A python weighing 110 pounds needs an injection of a 2% solution drug with the recommended dose of 2 mg/kg/day. If a python has two injections/day, what volume is required for each injection?

- A. 1.25 mL
- B. 2.5 mL
- C. 5.0 mL
- D. 10.0 mL

Answer B

Use the label below to answer #7 and #8

LOT
EXP

8594000

14030100

RIMADYL®
(carprofen)

75 mg

30 chewables

For oral use in dogs only

Caution: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

Non-steroidal anti-inflammatory drug
(NADA #141-111
Approved by FDA)

Warnings: Keep out of reach of children. Not for human use. Consult a physician in cases of accidental ingestion by humans. Do not use in cats. For use in dogs only. Please Refer to Complete Warnings and Precautions.

Precaution: Due to the palatable nature of Rimadyl chewable tablets, store out of reach of dogs and in a secured area. Severe adverse reactions may be expected if large quantities of tablets are ingested. If you suspect your dog has consumed Rimadyl chewable tablets beyond the labeled dose, please call your veterinarian and call 1-888-963-9471 for immediate assistance.

Store at controlled room temperature 15°-30°C (59°-86°F).

Each scored tablet contains 75 mg of carprofen.

Indications: Rimadyl is indicated for the relief of pain and inflammation associated with osteoarthritis and for the control of postoperative pain associated with soft tissue and orthopedic surgeries in dogs.

Dosage: Always provide Client Information Sheet with prescription. Carefully consider the potential benefits and risk of Rimadyl and other treatment options before deciding to use Rimadyl. Use the lowest effective dose for the shortest duration consistent with individual response. The recommended dosage for oral administration to dogs is 2 mg/lb (4.4 mg/kg) of body weight daily. The total daily dose may be administered as 2 mg/lb of body weight daily or divided and administered as 1 mg/lb (2.2 mg/kg) twice daily. For the control of postoperative pain, administer approximately 2 hours before the procedure. Tablets are scored and dosage should be calculated in half-tablet increments.

Manufactured by:
Zoetis LLC, Lincoln, NE, USA

Distributed by:
Zoetis Inc., 333 Portage St
Kalamazoo, MI 49007

7

FPO: UPC

8721907369

0

zoetis

Question #7 (5 points)

How many total mg are in the bottle?

- A. 75 mg
- B. 30 mg
- C. 2,250 mg
- D. 4,500 mg

Answer C

Question #8 (5 points)

The recommended dose for dogs is:

- A. 75 mg per dog
- B. 2 mg/lb
- C. 4.4 mg/lb
- D. 30 tablets per dog

Answer B

Question #12 (5 points)

Recommended Minimum Space Requirements for Reptiles

Reptile Group	Minimum Space Requirement
Tortoises and terrapins	0.4 m ² /0.1 m carapace length
Arboreal lizards	0.4 m ³ /0.1 m total length
Boas and pythons	0.6 m ² /meter of snake
Kingsnakes and rat snakes	0.6 m ² /meter of snake
Whipsnakes and racers	1.2 m ² /meter of snake
Arboreal snakes	0.8 m ³ /meter of snake

If a chameleon is 15 mm in length which of the following is the correct amount of space needed?

- A. 0.06 m
- B. 0.06 m cubed
- C. 0.36 m
- D. 0.36 m cubed

Answer B

Question #13 (5 points)

Greg was instructed to radiograph a beagle's leg after an accident. He wanted to know what the effect of changing the source to image distance (SID) to half the original distance would affect the amount of x-rays which is measured in milliamperage second (mAs). The original mAs was 5, the new SID is 20. What is the new mAs?

The formula is $\text{Old mAs} \times \frac{\text{New SID}}{\text{Old SID}} = \text{New mAs}$

- A. 2.5
- B. 10
- C. 15
- D. 22.5

Answer A

KEY Parasite Questions

The intermediate host for this parasite is a:

- 001 Tick
- 002 Mosquito
- 003 Dung beetle
- 004 Face fly

Which one of the following life cycle stages of giardia is motile?

- 001 Cyst
- 002 Larvae
- 003 Nymph
- 004 Trophozoite

Dogs and cats can become infected with this parasite by:

- 001 Direct contact with another infected animal
- 002 Direct contact with infected fomites
- 003 Direct contact with contaminated feces
- 004 Direct contact with the intermediate host

003 – a dog presenting for trouble breathing

004 – a dog presenting for lameness of a hind leg

207: small animal oxygen cage -

In which case would this equipment be necessary for the treatment of the patient?

001 – a cat that is presenting for dyspnea

002 – a cat that is presenting for planned ovariohysterectomy surgery

003 – a cat that is presenting for queening

004 – a cat that presenting for treatment of hyperthyroidism

213: surgical cap -

In which situation below would this piece of equipment be necessary?

001 – for a dog whelping in the treatment area of the veterinary clinic

002 – for a dog that is being sedated to obtain radiographs of an injured limb

003 – for a dog that is receiving a medicated bath for the treatment of demodectic mange

004 – for a dog that is having exploratory laparotomy to find the cause of vomiting

226 – trocar & cannula

Extra – 225-tourniquet

Parsites

304-coccidia

312 – giardia – trophozoite ipad question

316 – microfilaria – ipad question

306 – ear mite – ipad question

330- sarcoptic mite

335 –whipworm

332 –taenia egg

322-lice sucking

309- flea tapeworm

319 –horse bots

325 –mosquito adult

313 –hard tick

317 –Hookworm adult

328- roundworm adult

329-Roundworm egg

Breeds-

427- border collie

442- great Pyrenees

456 – papillon

521- jersey wooly

538- sun conure