Australian and New Zealand College of Veterinary Scientists

Sample Membership Examination

2023

Equine Veterinary Sports Medicine and Rehabilitation

Foundation Knowledge

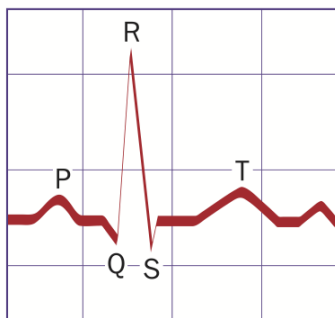Questions 1-3 are multiple choice
Questions 4-5 are short answer
Question 6-7 are long answer

Foundation Knowledge: Equine Veterinary Sports Medicine and Rehabilitation

Answer all seven (7) questions

1. What feature on a normal ECG trace represents ventricular repolarisation?

    (1 mark)

   A. The P wave

   B. The QRS complex

   C. The T wave

   D. The P-Q interval

2. What is the mode of action of chlorhexidine scrub when used during aseptic preparation?

(1 mark)

A. Disruption of the bacterial 50S ribosome

B. Disruption of the bacterial 30S ribosome

C. Bacterial cell wall penetration, oxidation and ionisation

D. Disruption of bacterial cell wall and precipitation of cell proteins

3. If the respiratory tidal volume of an animal is 0.5L, and its respiratory rate is 24 bpm, what is the animals respiratory minute volume?   *(1 mark)*

A. 120L

B. 720L

C. 30L

D. 12L

4. List **three (3)** positive outcomes that can be seen after chiropractic treatment.

(1.5 marks)

5. Describe the difference between the characteristics of the "shock" produced by a focused shock wave machine and a radial pressure wave machine.   *(3 marks)*

6. Briefly discuss the mechanism of action, efficacy, duration of action and side effects of triamcinolone when used for IA therapy.   *(8 marks)*

7. Compare and contrast the steps required from the point of blood collection to completion in order to process a sample of IRAP with those required to process a sample of PRP.   *(10 marks)*

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Equine Specific Knowledge

Questions 1-3 are multiple choice
Questions 4-10 are long answer

Equine Specific Knowledge: Equine Veterinary Sports Medicine and Rehabilitation

1. At what mmol/L concentration does the onset of blood lactate accumulation (OBLA) occur in the exercising horse?   *(1 mark)*

    A. 4 mmol/L

    B. 14 mmol/L

    C. 24 mmol/L

    D. 40 mmol/L

2. Which of the following is an indication for quinidine cardioversion in an eight-year-old Warmblood mare used for eventing with atrial fibrillation?   *(1 mark)*

    A. Marked atrial enlargement

    B. Complex ventricular ectopy

    C. Lone atrial fibrillation

    D. Marked valvular degeneration

3. According to the Australian rules of racing, what is the minimum time between the administration of an intra-articular injection and racing? *(1 mark)*

    A. 192 hours

    B. 10 clear days

    C. 144 hours

    D. 8 clear days

4. Discuss the difference between a "banned medication" and a "controlled medication" as defined by the FEI.   *(4 marks)*

5. Compare and contrast a Class 3B therapeutic laser with a Class 4 therapeutic laser.
   (4 marks)

6. A Thoroughbred racehorse with a history of poor performance has been diagnosed with dorsal displacement of the soft palate using an overground dynamic endoscope.

   Answer **both** parts of this question:

   a)   Briefly describe **two (2)** non-surgical interventions that can be used to help manage this horse.   *(2 marks)*

   b)   Briefly describe **two (2)** surgical interventions than can be used to help manage this horse.   *(2 marks)*

7. Describe the features of a horse's gait would lead a veterinarian to suspect a horse is suffering from Shivers?   *(3 marks)*

8.   Answer **all** parts of this question:

   a)   Describe the mechanism of action of mepivacaine.   *(1 mark)*

   b)   Identify **one (1)** advantage of mepivacaine over lidocaine when used for equine nerve blocks.   *(1 mark)*

   c)   Describe how a tibial-peroneal nerve block is performed.   *(6 marks)*

9.   Answer **both** parts of this question:

   a)   Briefly describe an appropriate management plan to prepare a horse for gastroscopy.   *(2 marks)*

   b)   List **two (2)** common medications that are used to treat gastric ulceration in the horse and discuss their mechanism of action.   *(2 marks)*

10.   Describe the different types of Salter Harris fractures.   *(5 marks)*

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