



Australian and New Zealand College of
Veterinary Scientists

Sample Membership Examination

2026

Equine Veterinary Sports Medicine and Rehabilitation

Equine Specific Knowledge

Questions 1-10 are multiple choice
There are 5 short answer questions

Equine Specific Knowledge: Equine Veterinary Sports Medicine and Rehabilitation

1. A show-jumper has just completed a 1.40m speed round. Which of the following molecules will be elevated in the blood? *(1 mark)*
 - A. Ammonia
 - B. Glucose
 - C. Lactate
 - D. Glycogen

2. An increase in which of the following kinematic parameters has a known association with lameness? *(1 mark)*
 - A. Fetlock joint extension
 - B. Stance duration
 - C. Coffin joint flexion
 - D. Hind limb protraction

3. Which kinematic parameters best explain a compensatory left forelimb lameness? *(1 mark)*
 - A. Less downward displacement of the pelvis during the stance phase of the left hindlimb
 - B. Greater vertical displacement of the pelvis during the pushoff phase of the left hindlimb
 - C. Less downward displacement of the chest during the stance phase of the right forelimb
 - D. Greater vertical displacement of the chest during the pushoff phase of the right hindlimb

4. In a field setting, which of the following parameters can be used as a predictor of aerobic capacity, in the absence of $\text{VO}_{2\text{max}}$? (1 mark)
- A. HRmax
 - B. Lapeak
 - C. VLa4
 - D. V200
5. A horse has a left forelimb lameness that is not evident when trotted in a straight line or when trotted on a circle to the left. It is consistently evident when trotted on a circle to the right on both a hard and soft surface. There is no lameness evident at a walk.

Using the American Association of Equine Practitioners 5 grade lameness Scale, which grade is this lameness? (1 mark)

- A. 1
 - B. 2
 - C. 3
 - D. 4
6. Which muscle is most superficial at the level of the withers and becomes impinged with poor saddle fit? (1 mark)
- A. Serratus ventralis cervicis
 - B. Serratus ventralis thoracis
 - C. Spinalis
 - D. Trapezius

7. In a showjumper, which limb is the deep digital flexor tendon under the greatest strain at landing? (1 mark)
- A. Leading forelimb
 - B. Trailing forelimb
 - C. Leading hindlimb
 - D. Trailing hindlimb
8. An endurance horse has been eliminated at the final vet check of a 120km endurance ride due to Synchronous Diaphragmatic Flutter (“Thumps”). Fluid supplementation with which of the following is most appropriate to treat this horse? (1 mark)
- A. Potassium
 - B. Bicarbonate
 - C. Manganese
 - D. Calcium
9. A 3-year-old Standardbred is examined as part of a pre-purchase examination. A grade 5/6 systolic murmur is detected over the right cardiac apex and a grade 3/6 systolic murmur is detected over the left heart base. Which is the most likely congenital defect that would explain the murmurs in this horse? (1 mark)
- A. Atrial septal defect
 - B. Ventricular septal defect
 - C. Tetralogy of Fallot
 - D. Patent ductus arteriosus

10. According to the Australian Rules of Racing, if a racehorse was administered intraarticular triamcinolone on January 15th, what is the earliest date the horse is permitted to race? (1 mark)

A. January 20th

B. January 22nd

C. January 24th

D. January 26th

Section 2: Short answer questions

1. Compare and contrast exercise testing performed in the field with exercise testing performed using a high-speed treadmill. *(7 marks)*
2. A 2-year-old Thoroughbred filly is presented with generalised muscle rigidity, sweating and stilted gait following light track work.

Answer **both** parts of this question:

- a. State the most likely diagnosis for the clinical presentation and the diagnostic test(s) that should be performed to confirm the diagnosis. *(2 marks)*
 - b. List THREE (3) risk factors for this condition. *(3 marks)*
3. A pre-purchase examination is performed on a fit, recently retired 4-year-old Thoroughbred racehorse that is to be purchased and retrained into a showjumper. On auscultation of the right side of the thorax, a grade 3/6 systolic murmur is identified.

Answer **both** parts of this question:

- a) State the most likely cause of this murmur. *(1 mark)*
- b) Outline the most appropriate advice for the purchaser regarding the frequency of occurrence, prognosis for future athletic performance, and whether any management or intervention is required. *(3 marks)*

4. Answer **all** parts of this question (a-c):
- a. Describe the two (2) forms of cervical vertebral malformation-malarticulation in horses. *(2 marks)*
 - b. List the two (2) broad types of surgical treatment for this condition and explain the rationale for each. *(4 marks)*
 - c. Describe the expected outcome of surgical management for improvement in neurologic dysfunction. Outline two (2) factors that affect the prognosis. *(3 marks)*
5. Explain the difference between a “Detection time” and a “Withdrawal time” in the context of equestrian competition and racing medication rules. *(2 marks)*

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