

STUDENT NUMBER Letter

VCE VET EQUINE STUDIES

Written examination

Wednesday 13 November 2019

Reading time: 2.00 pm to 2.15 pm (15 minutes)

Writing time: 2.15 pm to 3.45 pm (1 hour 30 minutes)

QUESTION AND ANSWER BOOK

Structure of book

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	20	20	20
B	22	22	80
			Total 100

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or correction fluid/tape.
- No calculator is allowed in this examination.

Materials supplied

- Question and answer book of 16 pages
- Answer sheet for multiple-choice questions

Instructions

- Write your **student number** in the space provided above on this page.
- Check that your **name** and **student number** as printed on your answer sheet for multiple-choice questions are correct, **and** sign your name in the space provided to verify this.
- All written responses must be in English.

At the end of the examination

- Place the answer sheet for multiple-choice questions inside the front cover of this book.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.

SECTION A – Multiple-choice questions**Instructions for Section A**

Answer **all** questions in pencil on the answer sheet provided for multiple-choice questions.

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1; an incorrect answer scores 0.

Marks will **not** be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

Question 1

A horse persistently rubbing its tail is likely to have an infestation of

- A. bloodworms.
- B. roundworms.
- C. hair worms.
- D. pinworms.

Question 2

A horse with a bulldog mouth has

- A. a lower jaw that is wider than the upper jaw.
- B. an upper jaw that is wider than the lower jaw.
- C. a lower jaw that protrudes beyond the upper jaw.
- D. an upper jaw that protrudes beyond the lower jaw.

Question 3

Thrush is a bacterial infection located in a horse's

- A. nasal passage.
- B. mouth.
- C. frog.
- D. eye.

Question 4

The footfalls 'right hind, left hind and right fore, left fore' describe the

- A. left lead gallop.
- B. left lead canter.
- C. right lead gallop.
- D. right lead canter.

Question 5

A zoonotic disease is **best** referred to as one that

- A. is notifiable.
- B. is highly infectious.
- C. requires quarantine.
- D. is passed from animals to humans.

Question 6

Transporting horses over long distances without a break can have a potentially serious impact on which equine system?

- A. urinary
- B. nervous
- C. digestive
- D. respiratory

Question 7

Hyperlipaemia **most** commonly occurs in

- A. ponies.
- B. warm bloods.
- C. obese horses.
- D. geriatric horses.

Question 8

A horse in shock due to severe blood loss will have which indications?

- A. dark mucous membranes, rapid heart rate and fast, weak pulse
- B. pale mucous membranes, rapid heart rate and fast, weak pulse
- C. dark mucous membranes, rapid heart rate and slow, weak pulse
- D. pale mucous membranes, rapid heart rate and slow, weak pulse

Question 9

In stabled horses, insufficient time spent eating forage such as grass, chaff and hay can lead to the development of

- A. laminitis.
- B. gastric ulcers.
- C. Australian stringhalt.
- D. Monday morning disease.

Question 10

A horse with a short back and relatively long legs is more likely to show which movement abnormality?

- A. forging
- B. scalping
- C. overreaching
- D. speedy cutting

Question 11

The fermentation of large amounts of grain in the hindgut creates

- A. lactic acid.
- B. amino acid.
- C. hydrochloric acid.
- D. volatile fatty acid.

Question 12

Photosensitisation in horses affects which physiological system?

- A. skin
- B. endocrine
- C. respiratory
- D. cardiovascular

Question 13

A foot–pastern axis that is excessively sloping will put strain on the

- A. cannon bone.
- B. flexor tendons.
- C. nuchal ligament.
- D. extensor tendon.

Question 14

The coffin joint is comprised of the pedal bone and which other two bones?

- A. sesamoid and first phalanx
- B. sesamoid and second phalanx
- C. navicular and first phalanx
- D. navicular and second phalanx

Question 15

Cushing’s disease is specifically caused by

- A. advanced age.
- B. a brain tumour.
- C. digestive dysfunction.
- D. a pituitary gland tumour.

Question 16

Cross-firing occurs when the

- A. hind hoof strikes the sole of the opposite forefoot.
- B. hind hoof strikes the sole of the forefoot on the same side.
- C. front hoof hits the inside of the opposite hind leg, above the fetlock joint.
- D. front hoof hits the front of the hind leg on the same side, above the fetlock joint.

Question 17

Which one of the following grains can be fed whole, is very palatable and digestible, is the least likely to cause digestive upsets and is high in fibre?

- A. oats
- B. maize
- C. wheat
- D. barley

Question 18

Equine immunity is the function of which two physiological systems?

- A. digestive and urinary
- B. digestive and endocrine
- C. lymphatic and endocrine
- D. lymphatic and cardiovascular

Question 19

Locking or upward fixation of the patella occurs in which equine joint?

- A. fetlock
- B. stifle
- C. knee
- D. hip

Question 20

The ideal diet for a mare during the first seven months of pregnancy consists of

- A. good pasture with a vitamin and mineral supplement.
- B. a daily mixed feed with a high grain component.
- C. good pasture and several biscuits of lucerne hay.
- D. a diet high in protein.

SECTION B**Instructions for Section B**

Answer **all** questions in the spaces provided.

Question 1 (3 marks)

In a healthy, adult horse, what is the normal range for

- temperature (°C)

- pulse (beats per minute, BPM)

- respiration (breaths per minute)?

Question 2 (4 marks)

- a. What are **two** common causes of a gall?

2 marks

- b. Outline an appropriate first-aid treatment for a gall.

1 mark

- c. How can a gall be prevented?

1 mark

Question 3 (2 marks)

Explain why it is necessary to measure feed by weight rather than by volume when preparing a feed ration for a horse.

Question 4 (2 marks)

What are **two** causes of anaemia in horses?

Question 5 (2 marks)

Name two conformation features that contribute to the length and smoothness of a horse's stride.

1. _____

2. _____

Question 6 (2 marks)

What are the two specific parts of a riding horse that are required to have good flexion?

Question 7 (6 marks)

The equine digestive system is unique and involves a range of different processes.

- a. Explain how the process of digestion is started in a horse's mouth. 2 marks

- b. What is the approximate capacity of the stomach as a **percentage** of the whole equine digestive system? 1 mark

- c. Name **one** enzyme secreted by the equine stomach that contributes to the digestion of food and describe how it works. 2 marks

- d. What is the main function of the equine small colon? 1 mark

Question 8 (2 marks)

Name one equine skin condition that is caused by the papilloma virus and describe a treatment for this condition.

Skin condition _____

Treatment _____

Question 9 (5 marks)

Botflies can be a risk to a horse's health.

Describe the life cycle of a botfly.

Question 10 (2 marks)

Identify the two equine systems involved in the regulation of blood pressure and blood volume.

1. _____

2. _____

Question 11 (3 marks)

Poor leg conformation can cause unsoundness in a horse due to increased concussion.

- a. What is 'concussion' and when does it occur? 2 marks

- b. Identify an example of poor leg conformation that can lead to increased concussion. 1 mark

Question 12 (5 marks)

Azoturia, recurrent exertional rhabdomyolysis (RER) and polysaccharide storage myopathy (PSSM) are all referred to by a common or generic name.

- a. What is the common or generic name for these conditions and what key visible sign do these conditions share? 2 marks

- b. What feeding practice can contribute to a horse involved in hard work developing these conditions? 1 mark

- c. What is the main difference between the specific conditions of RER and PSSM? 2 marks

Question 13 (5 marks)

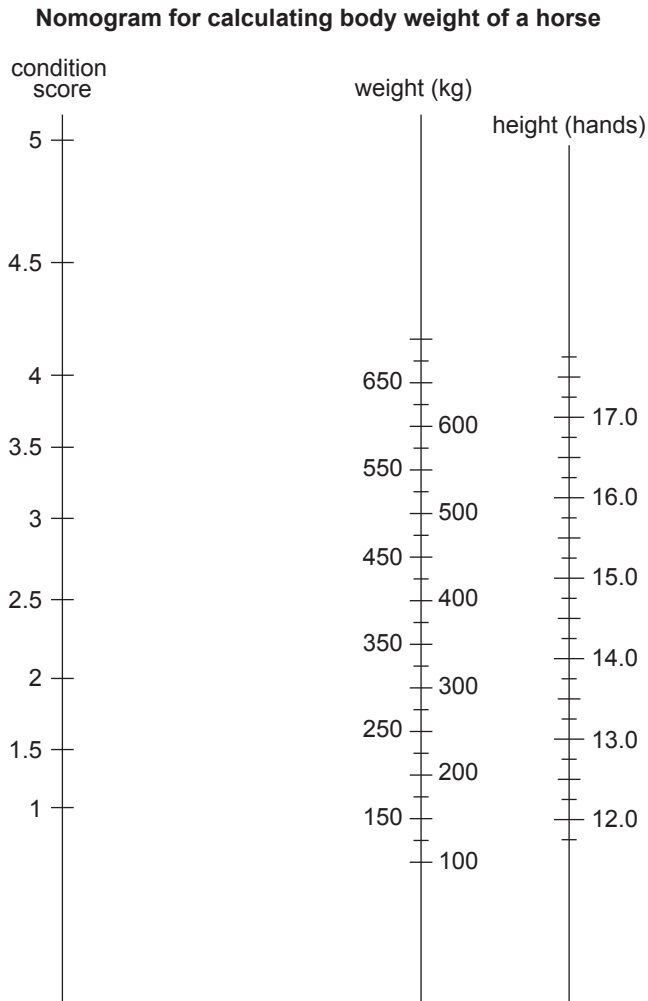
A 10-year-old, 16hh thoroughbred has a body condition score of 3. It is ridden five times a week and undertakes a number of different activities. These include:

- a one-hour showjumping lesson
- two 45-minute dressage sessions
- a two-hour trail ride
- a pony club rally.

The table below shows the daily feeding rates (kg) of a premixed complete ration for an adult horse.

Body weight (kg)	400	500	600	700
Light exercise	1.25–2.0	2.0–3.0	2.5–3.5	3.0–4.0
Moderate exercise	2.0–3.0	3.0–4.0	3.5–4.5	4.0–5.0
Intense exercise	3.0–4.0	4.0–5.0	4.5–5.5	5.0–6.0
Light exercise:	up to 60 mins walking, or 30 mins walking, trotting and cantering per day			
Moderate exercise:	up to 120 mins walking and trotting, or 30–60 mins trotting, cantering and some galloping per day			
Intense exercise:	30–60 mins intense skill work, short-duration galloping, racing and endurance per day			

The diagram below shows a nomogram that can be used to calculate the body weight of a horse.



Source: adapted from Peter Huntington et al., *Horse Sense: The Guide to Horse Care in Australia and New Zealand*, 2nd edn, Landlinks Press, Collingwood, 2004, p. 142

- a. Use the nomogram to determine the estimated weight of the horse described on page 10. 1 mark
-
- b. Use the information provided in the daily feeding rates table and the nomogram to calculate the suggested daily feed ration for the horse described on page 10. 1 mark
-
- c. What other feed component would need to be included in this horse's diet, other than water? 1 mark
-
- d. The horse begins to gain weight on this diet.
Suggest **two** options available to help prevent weight gain. 2 marks
-
-

Question 14 (3 marks)

In late winter, a horse sharing a paddock with three other horses is found to have lice.

All four horses are rugged.

Outline the treatment required for the horses in this situation.

Question 15 (4 marks)

A performance stable has 10 horses that are fed in the morning and late afternoon each day. Each horse receives an individualised feed ration. Some horses are receiving additives or medications that are prohibited for competition. The tasks of preparing and delivering the rations may be carried out by different staff.

Describe four processes that could be implemented to ensure the horses receive the correct feed ration.

1. _____

2. _____

3. _____

4. _____

Question 16 (8 marks)

Polo is a very fast and energetic sport. Horses reach speeds of 48 km/h and may cover a distance of nearly 5 km in a seven-minute period of play.

Polo ponies are required to display the following qualities:

- ability to accelerate quickly
- stamina and endurance
- ability to turn sharply
- ability to stop suddenly

For each of these qualities, identify a conformation feature that is important in a polo pony and explain why this conformation feature would be desirable. Identify a **different** conformation feature for each quality.

- Ability to accelerate quickly _____

- Stamina and endurance _____

- Ability to turn sharply _____

- Ability to stop suddenly _____

Question 17 (3 marks)

Wounds are common in horses, especially in those kept in paddocks. Even if a wound is treated promptly, there are a number of factors that will influence how quickly the wound will heal.

- a. Identify **two** factors that can affect how quickly a wound will heal. 2 marks

- b. What is the term used to describe the overgrowth of pink, granular tissue in a healing wound? 1 mark

Question 18 (3 marks)

A desirable aspect of conformation is 'ample bone'.

Identify the specific part of a horse that this term applies to. Explain how ample bone is determined and why it is desirable.

Question 19 (3 marks)

Identify one type of biohazard in the equine workplace and give two examples of this type of biohazard.

Type of biohazard _____

Example 1 _____

Example 2 _____

Question 20 (4 marks)

When a horse is receiving supplementary feeding, especially of grain, it is good feeding practice to introduce any changes to its diet over a period of seven to 10 days. This practice applies when the amount of grain is increased, when a different grain is used or when the same grain is used but from a different supplier.

- a. Explain the impact on the equine digestive system of a sudden change in the grain component of a horse's diet. 3 marks

- b. Identify **one** negative health consequence that may occur as a result of the impact explained in part a. 1 mark

Question 21 (6 marks)

List the three main types of equine muscle and explain the function of each.

1. Type of muscle _____

Function _____

2. Type of muscle _____

Function _____

3. Type of muscle _____

Function _____

Question 22 (3 marks)

Describe the conformation fault commonly referred to as ‘coon-footed’. Explain how this conformation fault may affect a horse’s soundness.
