



2009 VCE VET Equine Industry GA 2: Written examination

GENERAL COMMENTS

Students generally performed very well on the 2009 examination, with most students making reasonable attempts at all questions on the paper. However, a lack of depth of knowledge of the physiological systems of the horse persists despite this being commented on in the 2007 and 2008 Assessment Reports. Only the best students displayed consistent and detailed knowledge of all aspects of the study at a Certificate II standard. Students need to be aware of the need to develop mastery if they wish to do well.

In Section B the following general approaches were followed in allocating marks.

- If a question asked for a number of examples or reasons to be given and a student gave more than was required and no answers had been crossed out, only the required number of answers were considered. For example, if three responses were required and five responses were given, only the first three responses were assessed.
- If contradictory answers were given, or answers were repetitive, full marks were not awarded.
- Responses that did not address the subject of a question were given no marks.

Students are expected to provide answers which are consistent with the level of knowledge expected of an employee in the equine industry at Certificate II level. Student responses were, in general, brief and to the point. The space provided and the marks allocated should have been used as a guide to the length of answer required. It seemed that students were aware of the relationship between the number of marks allocated and the number of pieces of information needed. Students should be aware that instructions to ‘list’, ‘describe’ and ‘explain’ are different and an appropriate response is required in each case.

Students are advised to select carefully from a range of ideas before they commit to writing. They need to ensure that they read the question accurately, select the best answer and ensure their answers are not repetitive.

SPECIFIC INFORMATION

Section A – Multiple-choice questions

The table below indicates the percentage of students who chose each option. The correct answer is indicated by shading.

Question	% A	% B	% C	% D	% No Answer	Comments
1	46	3	7	44	0	
2	29	1	57	13	0	These questions required some analysis. Students need to be prepared for questions such as these, particularly in Section A.
3	32	4	16	48	0	
4	10	5	54	29	1	
5	29	59	12	1	1	
6	3	16	16	64	0	
7	13	70	9	7	1	
8	37	3	3	57	0	
9	1	93	0	5	0	
10	16	30	27	27	0	
11	0	5	90	5	0	
12	38	16	1	45	1	
13	81	3	3	13	0	
14	5	34	53	8	1	
15	13	31	38	18	0	This question rewarded those students who understood a basic principle of feeding – calcium-phosphorous ratios are important and most grains are relatively low in calcium.



Question	% A	% B	% C	% D	% No Answer	Comments
16	27	14	39	19	1	
17	3	10	25	62	0	
18	6	1	90	3	0	
19	54	28	13	5	0	This question required detailed knowledge.
20	2	1	94	3	0	

Section B – Short answer questions

For each question, an outline answer (or answers) is provided. In some cases the answer given is not the only answer that could have been awarded marks.

Question 1

Marks	0	1	2	3	Average
%	0	1	17	83	2.8

Any three of:

- exercise/exertion
- stress/anxiety/fear/fright
- excitement/sexual arousal
- shock
- pain/illness (infection)/allergic reaction
- mare in labour.

This question was well answered.

Question 2

Marks	0	1	2	3	Average
%	5	20	36	39	2.1

- Young growing horse: increase in tissue, particularly muscle and bone
- Pregnant mare: increase in tissue in growing foetus/foal
- Lactating mare: milk production

Answers needed to explain why there was an increased need for protein.

Question 3

Marks	0	1	2	3	Average
%	0	2	16	82	2.8

Any three of:

- pick hooves
- hoof dressing
- check for heat, swelling or cuts
- bandages/boots
- shoes and shoeing
- brush legs.

Question 4

Marks	0	1	2	3	4	5	6	7	8	Average
%	0	0	1	1	5	6	15	28	45	7

Illness/condition	Three common symptoms	Treatment
Colic	<ul style="list-style-type: none"> • repetitive lying down and getting up • rolling • not eating 	<ul style="list-style-type: none"> • attach lead rope • observe • call a vet if deterioration or

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	<ul style="list-style-type: none"> • constipated • pawing • flank watching • lip curling • backing into a corner • kicking at belly • increased pulse and respiration • extreme distress/misery • excessive sweating • abnormal/absent gut sounds • distended abdomen 	<p>symptoms persist for 30 minutes</p> <ul style="list-style-type: none"> • allow to rest or walk • prevent from rolling
Laminitis	<ul style="list-style-type: none"> • laying back on heels, particularly of forelimbs • lameness • separation of laminae • heat in the feet • horse reluctant to move and may lie down • bounding pulse can be felt in the main artery to the foot • very thick and hard crest (not obesity) 	<ul style="list-style-type: none"> • remove from excessive feed • request a blood test • vet attention/drugs required for acute cases • farrier – heart-bar shoe • keep horse in sand yard • cool feet

Students should avoid simply repeating ‘call the vet’ as a treatment.

Question 5

Marks	0	1	2	3	4	5	Average
%	7	10	19	22	23	18	3

Students’ knowledge of anatomical facts needs to be improved. Students must be able to identify parts of a horse in a range of diagrams. These kinds of questions can be anticipated and students should be able to answer them correctly.

5a.

Stomach

5b.

Ilium/small intestine

5c.

Caecum

5d.

Small colon/colon (not large intestine)

5e.

Anus/rectum

Question 6

Marks	0	1	2	3	Average
%	2	16	50	32	2.2

A large number of steps could have been recorded, including:

- tie up horse
- obtain rectal thermometer
- **lubricate thermometer**
- turn thermometer on
- stand to the side
- move tail

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- **insert thermometer (carefully) into the rectum**
- hold gently against the rectum wall
- **wait until indication that temperature is registered**
- remove thermometer
- read and record temperature
- clean and re-store thermometer.

Students needed to include the three stages in bold for full marks. This is a good example of the type of question where students must identify the most important parts of a procedure and ensure that they are included in their answer.

Question 7

Marks	0	1	2	Average
%	11	56	33	1.2

Two of:

- feed more frequently as the horse will then obtain more food if it maintains the same quantity eaten per feed
- increase palatability of food by adding something like molasses or by removing foodstuff the horse is rejecting so that more food is eaten
- change feed to one with higher megajoules of digestible energy (MJDE), protein and fat so that, despite the same weight of food being eaten, the horse obtains more nutrients. Use commercial preparation
- increase access to roughage via paddock grazing or unlimited access to hay.

Students needed to explain their answer. The question expected focus on feeding solutions as the horse was described as being in 'excellent health'.

Question 8

Marks	0	1	2	3	4	Average
%	2	3	13	28	55	3.3

Any four of:

- well-maintained leather
- approximately three fingers under the throat latch
- correctly fitted noseband
- the bit is sitting in the correct position, not too high or low (two or three creases at the corner of the mouth)
- correct size and type of bit. Bit rings one centimetre from the corner of the mouth
- the bit is correctly attached
- noseband buckles are approximately one centimetre below the cheekbone
- the noseband is correctly positioned
- the horse has plenty of room for its ears yet the brow band is not too long and floppy
- head piece/brow band correctly fitted.

Question 9

The distinction between 'mild' and 'acute' was important and assessors were looking for a clear progression between answers to 9a. and 9b.

9a.

Marks	0	1	2	Average
%	16	31	53	1.4

- Wash with antibacterial/antiseptic wash.
- Remove scabs.
- Trim fetlock.
- Treat with waterproof ointment.
- Stable or place in a dry area.
- When the pain and swelling has decreased, apply a drying agent.

9b.

Marks	0	1	2	Average
%	21	50	29	1.1

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- Call a vet.
- Wash with antibacterial wash.
- Stable or place in a dry area.
- Treat with antibiotics (internal or topical, for example, Prednoderma, prescribed cream).
- Treat with anti-inflammatory drugs/creams.

Responses needed to show a clear progression from a mild case to an acute/severe case.

9c.

Marks	0	1	2	Average
%	13	44	43	1.3

- Keep in a dry area. This is only practical if the horse is stabled overnight.
- Control manure in paddocks/control bacteria.
- Routine wash of feet with antibacterial wash.
- Use a zinc-based ointment or other barrier cream.
- Herbal products may also help with skin conditions and the control of infection. Types of herbs used are cedar root, tea tree and aloe vera.
- Let hair grow.
- Apply sunscreen.
- Keep pasterns dry.

Question 10

Marks	0	1	2	3	4	5	6	7	Average
%	3	8	20	25	21	18	4	0	3.3

jugular groove	Neck. (The line of indentation on the lower portion of the neck can be seen from either side, just above the windpipe.)
superficial gluteal	Rump (Muscle of buttocks [hind quarters])
buchal ligament	Runs from poll to wither. Top of neck. Very few students knew the name of this very important ligament. There was a general misconception that ligaments are always in the legs.
pharynx	Throat (upper respiratory tract)
epididymis	Testicles (not to be confused with epidermis)
poll	Highest point on a horse's head (between the ears) when the head is raised
stifle joint	First joint in the hind leg. Corresponds to the knee of a human, consists of the articulation between the femur and the tibia, as well as the articulation between the patella and the femur. The stifle joint is between the gaskin and the patella.

This question should have been straightforward as all the parts of the horse listed are significant parts of the systems being studied. Students should know the names of the major components of equine anatomy.

Question 11

Marks	0	1	2	Average
%	7	13	80	1.8

Normal: Flesh is pink

Abnormal: Red, brick red, brown, pale pink, white, blue, yellow (not grey or green)

Question 12

Since processing covers a broad range of actions, a broad range of answers was accepted.

12a.

Marks	0	1	2	3	Average
%	7	19	34	41	2.1

Any three of:

- easily digestible

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- greater surface area
- less digestible outer husks broken
- less digestible outer husks broken down, for example, by boiling
- less digestible outer husks removed
- able to extract more nutrients
- extend shelf life
- consistency of the product
- convenience for owners
- simplify the balancing of the feed ration/know the exact feed values per weight
- helpful for horses with poor teeth, no teeth (for example, a foal) or respiratory tract disorders
- increase availability of starches
- gives control over the level of energy in the feed, for example, 'cool conditioners'/high energy feeds
- increased palatability
- relatively cheap.

12b.

Marks	0	1	Average
%	43	57	0.6

Any one of:

- shorter storage life/longer shelf age
- time-consuming
- do not know the composition of the grain/grains vary in quality
- loss of nutritional value due to processing
- cost.

Question 13

Marks	0	1	2	Average
%	0	18	82	1.8

Type of rug	When it would be used	Why it would be used
lined canvas	waterproof, used in winter	to keep the horse warm and dry
unlined canvas	used on a wet but not a cold day – spring and autumn	to keep the horse dry and not too hot
doona	used in winter in a stable or under a waterproof rug in a paddock	to keep the horse warm
woollen	made of wool and is warm, used at shows or races on fine, cold days in stables or under waterproof rug if the horse is out in the paddock	to give warmth on a cold, dry day
cotton	used in summer or under winter rugs against the skin	<ul style="list-style-type: none"> • to keep the horse clean • to limit biting insects • to stop bleaching • they are easy to wash and keep clean
quarter sheet	used in cold weather on horses being warmed up	covers the loins and keeps them warm

Question 14

Marks	0	1	2	Average
%	1	21	78	1.8

Gentle trickle: on a minor wound, when cold hosing a swollen leg, on an unsettled horse, to rinse blood

Forceful jet: for removing embedded dirt from a wound, on swelling

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A wide range of responses were accepted as long as a distinction was made.

Question 15

Marks	0	1	2	3	4	Average
%	8	23	36	25	8	2.1

Base narrow: separation of hooves less than hocks or shoulders

Impact: loss of stability on turns, causes the horse to bear more weight on the outside of the foot and leg, subjecting the outside of the limb to more strain and potentially unsoundness (may lead to ringbone), plaiting with possible interference or stumbling, not paddling or winging

Toe-in/pigeon toed: Hooves turned in, the limb rotates inward, sometimes from as high as the chest

Impact: Strain on the outside leg joints, the horse may 'paddle' (outward deviation) when moving, strains the side of the joints although there is rarely interference caused by striking leg with hoof, not plaiting or winging

There was a disappointing lack of specific knowledge about the results of conformation defects. It was necessary for students to know that the stress from conformation defects is on the outside of the foot and leg, and to know the difference between paddling, weaving and plaiting.

Question 16

Marks	0	1	2	3	4	Average
%	1	1	17	4	77	3.6

Any two of (including an explanation):

- infectious disease such as strangles or equine influenza. These diseases are airborne and spread by close contact
- initial quarantine to ensure no incubation of communicable diseases when moving to a new property
- quarantine prior to departure
- ringworm: spread by contact between horses often via shared grooming equipment
- lice: spread by contact between horses often via shared grooming equipment
- stallion control
- isolation of mare.

Question 17

Marks	0	1	2	3	4	Average
%	1	2	7	36	53	3.4

Any four of:

- weight/condition
- age
- workload
- reproductive status
- climate
- shelter
- rugs
- sex
- quality of pasture
- temperament and metabolism
- likes and dislikes.

Height or breed was not accepted. An explanation was required for full marks.

Question 18a.

Marks	0	1	Average
%	8	92	1

Suitable at almost any time (veterinary attention, shoeing a difficult horse)

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Question 18b.

Marks	0	1	Average
%	30	70	0.7

One of:

- when no restraint was needed
- for dental work
- when tubing
- when a more restrictive restraint was needed (for example, crush for pregnancy testing)
- loading a horse (twitch is used to make the horse stand still)
- floating.

Riding was not accepted. Answer needed to show a Certificate II level of knowledge.

Question 19

Marks	0	1	2	3	4	Average
%	1	2	12	37	48	3.3

Despite the question asking for an explanation, it was decided that a list containing four of these strategies would be awarded full marks:

- regular worming program/correct dose
- variation in type of worming chemical (brand sufficient, period not considered for marking)
- private paddock
- removal of faeces
- scattering of faeces (harrowing)
- cross grazing
- rotation of paddocks
- worm and quarantine new horses
- feed off the ground.

Faecal worm count was not accepted.

Question 20

Marks	0	1	2	3	4	5	6	7	8	Average
%	1	2	4	2	6	10	15	5	55	6.5

Scapula, humerus, radius, knee, cannon bone, long pastern, short pastern, pedal bone

Once again it was clear that students need to improve their anatomical knowledge.