



**2008 VCE VET Equine Industry GA 2: Written examination**

**GENERAL COMMENTS**

Students generally performed very well on this year's examination. However, there was still a lack of depth of knowledge of the physiological systems of the horse despite this being commented on in the 2007 Assessment Report.

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 asked for 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, then 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 question were given no marks.

It was pleasing to see that most students provided answers that were consistent with the level of knowledge expected of a trainee 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 were used as a guide to the length of the answer required. It seemed that students were aware of the relationship between the number of marks and the amount of information needed.

**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	0	100	0	0	0	
2	100	0	0	0	0	
3	12	25	14	49	1	
4	41	18	20	20	0	This question was poorly done; it appeared that students attempted to guess the answer. It was surprising that many students chose option D even though it was not a ligament.
5	30	3	64	3	0	
6	5	83	10	3	0	
7	1	3	93	4	0	
8	2	5	89	4	0	
9	14	48	9	29	1	The spread of responses indicated the need for more precise knowledge about teeth.
10	99	1	0	0	0	
11	0	3	97	1	0	
12	11	15	2	72	0	
13	14	11	56	18	0	Lack of knowledge of anatomy was displayed by many students.
14	2	78	15	5	0	
15	89	9	1	1	0	
16	3	3	0	94	0	
17	37	56	5	2	0	Once again, poor knowledge of anatomy was displayed.
18	4	34	61	2	0	

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19	2	3	35	59	1	
20	78	14	0	8	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	4	5	6	7	8	Average
%	0	0	0	0	2	6	36	15	42	6.9

Situation	Potential hazard	Solution
Entering a stable with a horse in it	Being kicked, bitten or crushed	Encourage horse to face stable door when you enter. Place halter on horse as you enter stable. Stand between horse and door (exit route). Approach with care. Get horse's attention.
Bandaging a horse's tail	Kicked	Place horse in crush. Stand very close to the hind legs and slightly to one side. Make horse aware of your presence.
Tying up a horse	Being bitten, getting rope burn if the horse pulls back, being stood on or getting caught in the rope. Injury to horse or horse getting loose.	Stand to one side. Wear protective footwear. Work quickly and positively. Cross tie in appropriate tie up area or use tie up bay. Tie up correctly.
Vermin control in the tack room	Poisoning Tack damaged Note: <b>not</b> feed related	Place in bait stations. Store tack safely. Check for damage.

Students were not required to distinguish between the hazard (for example, a horse) and the associated risk (for example, being kicked).

This question was well answered with most students clearly demonstrating equestrian knowledge. A large number of students gave answers on vermin control related to food and these were not accepted. Students did not seem to clearly understand the term 'vermin' and many focussed on fumigation, which is relatively insignificant.

### Question 2

Marks	0	1	2	3	4	5	Average
%	3	3	4	9	30	51	4.2

Any five of:

- feed according to work, size, temperament and age
- feed only good quality feed and keep feed safe from contamination (water, vermin, weevils, light, air)
- feed sufficient roughage
- feed little and often
- make gradual changes to feeding practices
- keep to the same feeding times
- feed something tasty
- do not work immediately after a full feed
- provide ample water
- keep utensils clean
- feed by weight
- do not feed unprocessed wheat or barley
- keep feed off the ground
- do not have feed too high

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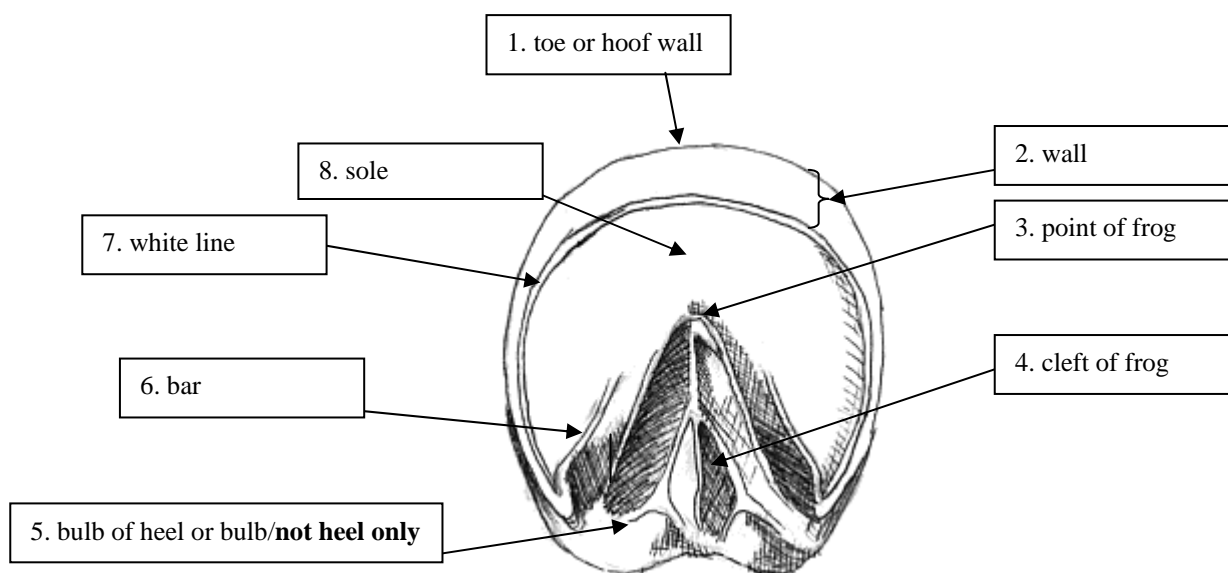
- separate horses when feeding
- maintain an accurate feed board
- feed in a safe place
- feed the dominant horse first
- feed out an extra hay biscuit.

Answers relating to the feeding principles were also accepted. A wide variety of creative responses were given and these were assessed on the basis that the suggestions increased safety.

Students generally did not gain marks if their practices were repetitive.

## Question 3

Marks	0	1	2	3	4	5	6	7	8	Average
%	0	2	4	13	24	24	24	9	1	4.8



One mark was awarded if number 3 or 4 were labelled 'frog' only; students could not gain marks for both number 3 and 4 in this case. Students should note that this level of distinction between point and cleft of frog is expected.

## Question 4

Marks	0	1	2	3	4	5	6	7	8	Average
%	0	0	0	0	4	15	25	30	27	6.6

Any eight of:

- changes in vital signs:  
Temperature: 36.5–38.5°C  
Resting pulse: 20–45 beats per minute  
Respiration: 8–20 breaths per minute
- poor appetite, difficulty eating, no appetite, excess water intake, difficulty drinking or not drinking
- heavy slobbering or coughing up food
- accelerated or laboured breathing
- excessive coughing, shivering or wheezing, abnormal discharge from nose or mouth
- restless, agitated behaviour, lethargic behaviour, hanging head, droopy ears, unhappy appearance, unusual behaviour or wild-eyed
- constantly getting up and down, pawing, rolling, biting or kicking at belly
- dull-eyed, discharge from the eyes
- profuse or patchy sweating
- frequent urination or difficulty in passing urine, constantly straining or stretching out
- diarrhoea, change in appearance of droppings or constipation

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- unaccountable heat or swelling in any part of the body
- dull coat, loss of hair, excessive itching
- dehydration
- lameness or pain.

Once again repetition was not rewarded. Simply saying 'sweating' or 'temperature' was insufficient.

## Question 5

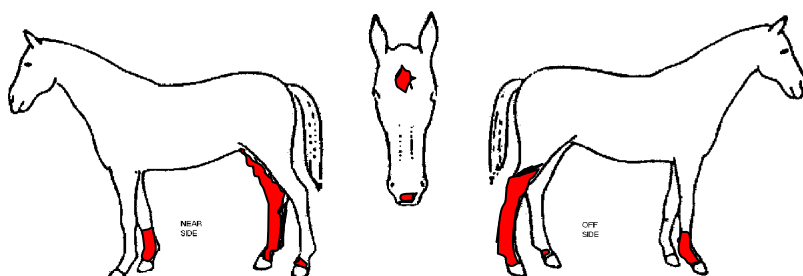
Marks	0	1	Average
%	77	23	

A haematoma is a collection of blood (bruise or sack) and can occur anywhere that bleeding occurs.

This question was poorly answered. Students should note that attention to detail, including knowledge of terms such as haematoma, will be rewarded.

## Question 6

Marks	0	1	2	3	4	5	6	Average
%	0	1	6	15	20	33	24	



Any type of marking was accepted to indicate a whorl although students should note that the common convention is 'x'. Completing an identification chart for a horse is an essential skill and students should be aware that they need to mark all diagrams. One mark was deducted if only one side of the horse was marked.

## Question 7

Marks	0	1	2	Average
%	80	15	5	

Bran, pollard and rice hulls

Overall, this question was not well answered.

## Question 8

Marks	0	1	2	3	4	Average
%	33	3	8	17	40	

Any four of:

- bones/skeleton
- muscles
- joints
- tendons
- ligaments
- cartilage.

Or any four of:

- axial skeleton
- appendicular skeleton

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- smooth muscles
- cardiac muscle
- irregular bone
- flat bone
- long bone
- fast twitch
- slow twitch
- flexor
- extensor.

A variety of interpretations of ‘anatomical features that comprise the musculoskeletal system’ were accepted.

## Question 9

Marks	0	1	2	3	4	Average
%	3	0	5	17	75	3.6

Restraint	Situation
Nose Twitch	Drenching a horse
Ear Twitch	Branding unhandled young stock
Crush	Pregnancy testing
Hobbles, breeding straps	Breeding (breeding straps) Breaking in When camping out without paddocks or yards (to stop the horse wandering)
Sedation	Under veterinary supervision
Holding leg up	Treating a wound

Halter, anti-rearing bit, bridle, stable, yard, blindfold, stallion chain, dental (Hausmann's) gag and skin roll were also accepted.

Repetition was allowed in the situation but not in the restraint, for example, holding and tying up with a halter was considered a repetition.

This question was very well done with most answers displaying equine knowledge.

## Question 10

### Question 10a.

Marks	0	1	Average
%	3	97	1

Colic

### Question 10b.

Marks	0	1	2	Average
%	1	22	77	1.8

Two of:

- keep horse calm to reduce stress
- allow the horse to lie down but not roll. Lying down may reduce stress. Rolling may result in a twisted bowel
- keep horse moving/prevent horse from lying down. This may help in impaction cases
- offer water but no food as water may assist the horse to pass a blockage
- keep horse warm but not overheated to reduce the effect of shock
- record vital signs so that progress can be monitored and the vet can be given details when they arrive.

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In this question an explanation was vital as sometimes the steps recommended might be contradictory. For example, allow the horse to lie down/do not allow the horse to lie down.

## Question 11

Marks	0	1	2	3	4	5	6	7	8	Average
%	2	1	2	2	8	7	24	10	44	6.4

This question was well done. Students needed to identify four clearly different areas and discuss conformation issues that could be observed from the photographs. The photographs were treated principally as a motivation for comment and the assessors were not too concerned about detail. For example, horse A could have been regarded as having either an appropriate or an excessive pastern angle.

There needed to be a comparison of the areas identified.

Area of the horse	Horse A	Horse B
Neck and throat	Nice well-balanced neck joining the body seamlessly Clear air passage	Ewe neck
Pasterns	Appropriate sloping pasterns – same degree of slope as the shoulder	Short, upright pasterns
Shoulder	Well-sloping shoulder	Straight shoulder
Girth	Deep girth	Shallow girth
Topline	Flowing topline	Disjointed topline
Forelegs	Knee sits well in line with the forearm and cannon	Sprung at the knee
Hind legs	Hocks line up well	Sickle hocks

## Question 12

Marks	0	1	2	3	4	Average
%	0	2	6	30	62	3.5

Virtually any part of a mounted saddle could suffer wear and tear so this question was equivalent to asking students to identify four parts of the saddle, including:

- pommel
- stirrup leathers
- stirrup irons
- points
- padding
- cantel
- tree
- seat
- waist
- stirrup loop
- knee roll
- flaps
- panel
- gullet
- horn
- girth.

Simple stating 'stitching' or 'leather' was insufficient. Saying 'stitching on...' or 'buckles on...' was accepted.

## Question 13

Marks	0	1	2	3	4	Average
%	2	51	43	4	0	1.5

Calcium is necessary for:

- keeping bones and teeth healthy. Only one mark was given for mentioning both 'bones' and 'teeth' as this was considered repetitive

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- blood clotting
- normal functioning of the brain and spinal cord (central nervous system)
- keeping muscles working properly
- metabolism.

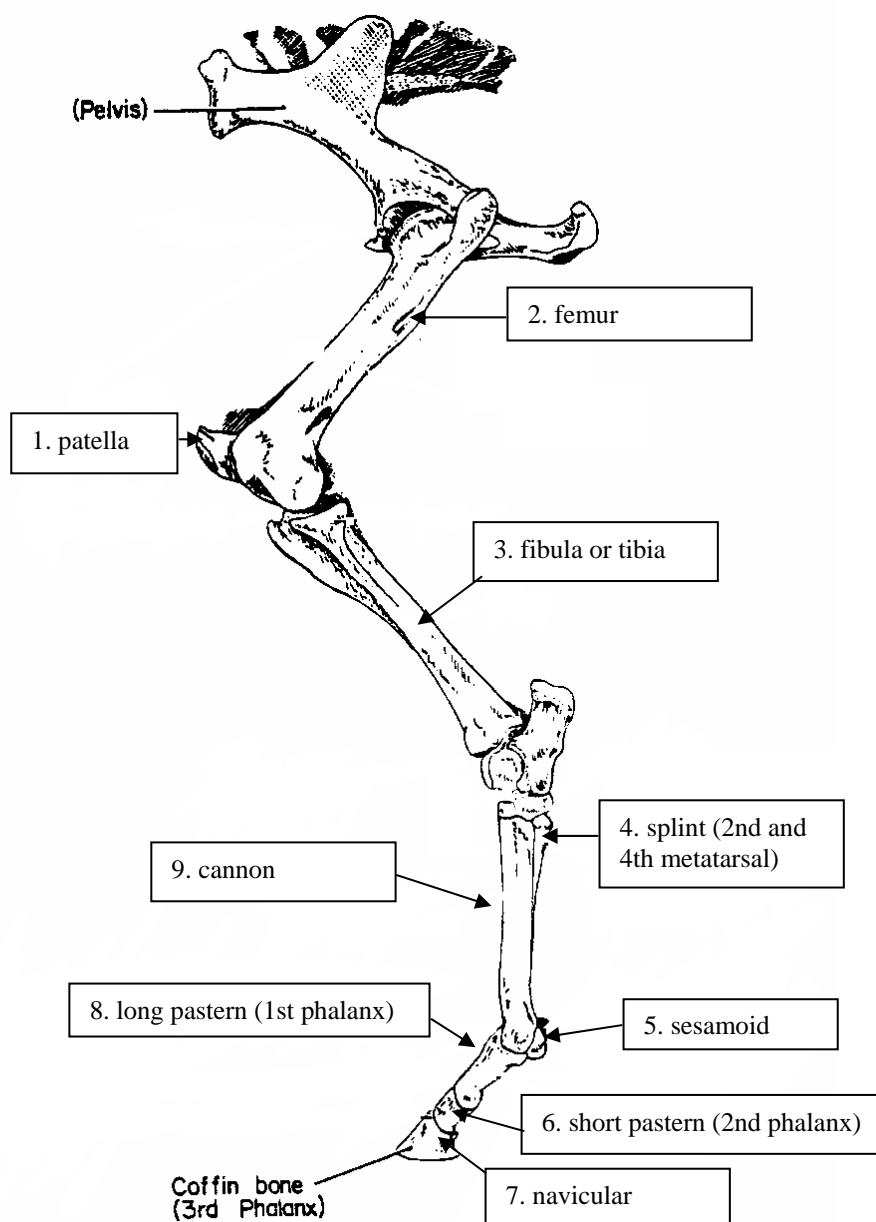
## Iron

- The main role of iron in the body is in the red blood cells. Here it combines with a protein to form haemoglobin (blood health).
- It also assists cell metabolism (part of some enzymes).

All students should know the main function of calcium and iron. However many did not.

## Question 14

Marks	0	1	2	3	4	5	6	7	8	9	Average
%	3	12	15	14	13	12	11	8	10	3	4.2



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This question was poorly done. This is disappointing as the need for students to have specific anatomical knowledge has been mentioned in previous Assessment Reports.

Students coped better with the lower leg than the upper leg.

## Question 15

Marks	0	1	Average
%	22	78	0.8

Raised temperature was the most likely response but reddening of mucosa, significantly increased pulse rate and significantly increased respiratory rate were also accepted.

Simply stating 'temperature' was not sufficient.

## Question 16

Marks	0	1	2	3	Average
%	9	19	37	35	2

Cut: Laceration or incision of the skin

Abrasion: Superficial damage to the skin, generally not deeper than the epidermis. Stating that 'an abrasion is a ... cut' resulted in no marks.

Bruise: An injury to biological tissue in which the capillaries are damaged, allowing blood to seep into the surrounding tissue without breaking through the skin surface. Students needed to mention blood to receive the mark.

## Question 17

Marks	0	1	2	3	4	Average
%	4	1	1	34	59	3.4

Any four of:

- age
- workload
- growth rate
- pregnancy status
- lactation
- weather conditions
- health
- living environment (stable/paddock)
- body condition
- taste preferences
- adverse reactions to some feeds
- metabolism
- appetite
- ability to perform
- weight change.

Appropriateness could be defined in terms of how well an existing ration suited a horse or how an appropriate ration would be designed. 'Breed' was not accepted as it is the properties of a breed that determine an appropriate ration.

## Question 18

Marks	0	1	2	Average
%	14	40	46	1.3

The main function of the respiratory system is to exchange gases between the horse's internal and external environment – oxygen to cells, carbon dioxide away. Students needed to mention both oxygen and carbon dioxide (breathing in and out).

## Question 19



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Marks	0	1	2	3	4	5	6	7	8	Average
%	4	2	3	4	12	8	23	5	38	5.9

A two-year-old:

- has a full set of six incisor milk teeth that are small and white with a distinct neck
- horse's incisors are almost vertical. As the horse ages its teeth grow forward and wear so that the angle between them decreases
- horse's teeth will have a deeply folded enamel cavity called infundibulum or cup. These become darkened by food and are called marks. The cups disappear in the centrals at five and a half years of age
- has 20 molars and the central pairs are temporary.

A twelve-year-old:

- has a Galvayne's groove on the upper corner incisor. This groove can first be seen at ten years of age and extends to the end of the tooth at 20 years of age
- horse's teeth will show signs of wear. They will have a different shaped table – more triangular
- a dental star begins to appear in centrals at 8–10 years
- all males (and some females) have canine teeth (tushes, bridle teeth) that erupt at five years of age
- has 24 permanent molars.

Many students displayed sound knowledge of the differing dental structure of two year old and 12 year old horses. Students were required to describe and explain the characteristics but did not need to compare the horses.

## Question 20

Marks	0	1	2	3	4	Average
%	0	3	10	36	52	3.4

Any four of:

- fractures
- colic
- foaling problems
- haemorrhage
- shock
- extensive external cuts
- deep cuts
- puncture wounds
- road accidents
- eye injuries
- extreme temperature
- respiratory distress.

Heart attack, foaling and laminitis were not accepted.

## Question 21

This question rewarded students for depth of specific knowledge. The stem of the question gave a clear indication of what was required.

### Question 21a.

Marks	0	1	Average
%	90	10	0.1

Irregular

### Question 21b.

Marks	0	1	Average
%	79	21	0.2

Flat

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## Question 21c.

Marks	0	1	Average
%	100	0	0

Sutures

## Question 21d.

Marks	0	1	Average
%	43	57	0.6

The shoulder joint is a ball and socket.

Students were also awarded a mark for noting that the method of attachment to the rest of the body is fibrous.