



2005 VCE VET Equine Industry GA 2: Written examination

GENERAL COMMENTS

Students generally performed very well on this year's examination. Understanding of industry terminology was essential to answering many questions correctly. In Section B, the following general approaches applied when marking students' work.

- Students who gave two or more responses that meant the same thing did not gain marks for both responses. In this case, only one mark was awarded for all similar responses.
- Where a question asked for a number of examples or reasons and a student gave more examples than was required, only the required number of answers was marked.
- If contradictory answers were given, full marks could not be awarded.
- Questions that were worth two marks, for example Question 22, required two correct pieces of information.

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
1	18	15	57	9	1
2	5	86	7	2	0
3	58	24	15	3	0
4	17	16	16	51	1
5	82	4	8	6	1
6	22	40	22	15	1
7	8	25	26	41	0
8	9	10	3	78	1
9	49	34	10	6	1
10	26	10	47	17	1
11	1	2	14	83	0
12	90	1	9	0	0
13	9	31	19	41	1
14	14	10	2	74	1
15	44	42	2	12	1
16	82	4	13	1	0
17	0	0	16	83	1
18	14	62	20	4	0
19	88	2	2	7	0
20	82	16	0	2	1

Options B and C were both accepted as correct answers to Question 6.

Section B – Short-answer questions

Question 1

Marks	0	1	2	Average
%	1	12	87	1.9

Any two of:

- isolate the sick horse(s) or any horses that are new to the stable
- gear used on that horse(s) not to be used on any other horses
- handler to wear overalls/particular clothing for that horse
- hands and boots to be disinfected after handling the horse
- clean stable environment to be maintained
- horse(s) that may be contagious should be treated by a vet as soon as possible
- adequate airflow to be maintained.

This question was well done. Most students mentioned quarantine, which was the most obvious answer.

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Question 2

Marks	0	1	2	Average
%	21	50	30	1.1

The owner needs to ensure the new oats are weighed out into the feed at the same weight, as there can be a variation in the weight of oats from paddock to paddock, property to property and therefore delivery to delivery.

Feed is measured by **weight** not volume. A lot of students did not understand the necessity to feed horses by weight rather than volume. The answer required specifics on feeding practices.

Question 3

Marks	0	1	2	3	4	Average
%	7	7	23	18	46	2.9

Method 1: Ground, cracked, soaked, crushed or steam rolled (flaked) to soften and open up the grain kernel, which increases the digestibility.

Explanation: Cooking or boiling gelatinises the starch content of the kernel and enhances the efficiency of digestion.

Method 2: Extrusion (steam pressure cooking), which increases digestibility.

Explanation: Micronising (extremely finely ground) increases digestibility.

Wheat and sorghum were not known to many students. Barley was well known and students answered this part well.

Question 4

Marks	0	1	2	Average
%	2	12	87	1.9

Any two of:

- contamination by rodents, poison, other feeds, dust or dirt
- by getting wet/mouldy
- because of prolonged, direct sunlight exposure.

This question was well answered. One mark was given for each correct way.

Question 5

Marks	0	1	2	Average
%	12	30	59	1.5

Common examples included:

- Biotin – hoof food
- Cell salts – electrolyte replacement and a range of other additives
- Founderguard – prevents founder
- Calplus – calcium supplement to boost calcium content.

Other acceptable answers included vitamins, minerals and medications. Incorrect answers included food concentrates—grains, seeds, etc.

Students often did not understand the industry language, ‘additives and supplements’, in this question and tended to respond with foodstuffs.

Question 6

Marks	0	1	Average
%	1	99	1.0

Acceptable answers included:

- it could be a sign that there is something wrong with the horse – an illness or injury
- the horse might have worked too hard for its fitness level
- the horse might be receiving more feed than it needs
- the horse might have developed a dislike for a particular feed
- the horse is not receiving planned nutrition.

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This was the best answered question on the paper.

Question 7

Marks	0	1	2	3	4	Average
%	0	2	3	14	82	3.8

Some examples of hazards included:

- stable doors left swinging or not opened properly
- floors not kept clean
- gear/equipment/tools left lying around
- stable doors not latched securely
- electrical cords left across walkways or lying around.

Some examples of outcomes included:

- fire
- infection
- congestion in stables
- effect on equine behaviour.

There were many acceptable answers to this question, and one mark was given for each correct answer. The question asked for four potential hazards in **stables**, not yards. Answers needed to be realistic – some students tended to be highly imaginative (one answer even mentioned a bomb scare).

Question 8

Marks	0	1	2	3	4	Average
%	1	1	3	25	70	3.7

Any four of:

- place a head collar/halter on a horse to control it
- place a bridle on a horse for control when riding
- put a nose twitch on a horse to control it for treatment
- twitch a skin fold on a horse to control it for treatment (neck twitch)
- use your hand to hold the horse's ear tightly and down for treatment
- place a horse in a stable or small yard to control it
- sedate a horse with a powder, paste or injection for treatment
- use an anti-rearing bit
- lift a leg up
- tie the horse up.

This question was very well done. A full range of responses were given – from crush to chemical restraint.

Question 9

Marks	0	1	2	3	4	5	6	Average
%	0	0	1	1	4	13	81	5.7

9ai.

Any two of:

- head collar
- anti-rearing bit
- tail bandage
- light rug(s)
- travel boots.

9aai.

Any two of:

- bridle
- protective wraps
- bandages
- boots
- saddle.

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9b.

Any two of:

- grooming kit
- first aid kit – human and horse
- competition gear – saddle, bridle, boots.

Some students lacked understanding of the industry terminology, 'gear'. Gear for competition could include gear not normally used in training.

Question 10

Marks	0	1	2	3	4	5	6	Average
%	40	12	15	10	8	6	8	1.9

- The superficial and deep digital flexor tendons run parallel to the cannon and at the back of the cannon. They assist with flexion of the lower leg.
- The common digital extensor tendon and lateral digital extensor tendon both run down the front of the cannon and pull the leg forward, or create extension of the leg.

Students generally gave very poor answers to this question. Ligaments, etc. were often given as answers. Most students did not know the location or function of the tendons. Students need to be aware that they are expected to demonstrate a reasonable level of technical knowledge in their answers.

Question 11

Marks	0	1	2	3	Average
%	14	26	43	17	1.7

Any six of:

- nostrils
- air passages (sinuses)
- epiglottis
- larynx
- pharynx
- trachea
- bronchus
- lungs
- bronchioles
- alveoli
- capillaries.

One mark was given for two correct parts, up to a maximum of three marks.

Question 12

Marks	0	1	2	3	4	Average
%	9	9	14	32	36	2.8

Any four of:

- provides a structure for the rest of the organs and muscles, etc. to attach to
- acts as a support
- provides a framework for movement via muscles
- provides protection for internal organs
- provides a site for blood cell production
- contains most of the mineral content of the body (especially calcium and phosphorous)
- protects the spinal cord.

This question was well answered. One mark was given for each correct function, up to a maximum of four marks.

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Question 13

Marks	0	1	2	3	4	5	Average
%	0	1	3	12	20	64	4.5

Location	Point	Location	Point
C	gaskin	F	croup
H	withers	D	point of stifle
G	loins	I	jugular groove
J	point of shoulder	E	point of hip
K	point of elbow	B	hock

This question was very well answered. One mark was given for every two correct points, up to a maximum of five marks.

Question 14

Marks	0	1	2	3	4	5	6	7	8	Average
%	12	5	15	9	16	9	16	5	12	4.1

Conformational feature	Effect of feature on performance
Proportions (size or length of each part in relation to each other)	Long muscles are able to move the limb further. The length of the neck, shoulder, forearm and croup (from hip to hock) all help horses take longer strides.
Long pasterns	More susceptible to injury.
Long cannons	More susceptible to tendon injury; flexor tendons not as strong. More chance of the back of the fetlock striking the ground (sesamoid injuries).
Short back	Able to carry weight, and easier to 'come under'.
Long from hip to hock	Powerful hind legs (locomotion).
Correct hock angle	Makes leavers more efficient in pushing and carrying weight.
Good sloping shoulder – parallel with pastern	More range of motion to swing leg forward. Absorbs shock.
Good croup	Important for balance and movement. Allows the horse to flex the lumbar-sacral joint, tuck hindquarters under and engage hind legs for balance and power.
Well-set neck	Good for balance and movement.
Long, prominent wither	Plenty of room for muscle attachment and flexibility.

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Good gullet	Allows for airflow.
Neat, well-set head	Adds to the overall appearance and balance required for a show horse.
Well-shaped hooves	Provide protection for the third phalanx (coffin bone).

Question 15

Marks	0	1	2	3	Average
%	2	5	22	71	2.7

Any three of:

- not eating
- lack of interest/attention to surroundings
- not drinking
- anxiety – pacing box, over-attentive, whinnying
- excessive rolling
- trying to bite stomach
- general stance
- lying down, not willing to stand
- listlessness
- pawing the ground
- aggressive to other horses and/or handlers.

Answers had to be **behavioural**. A lot of students did not seem to understand this and wrote about physical symptoms (for example, coughing).

Question 16

Marks	0	1	2	3	Average
%	1	1	20	78	2.8

Any three of:

Personal protective equipment	Signs the equipment will need to be replaced
Helmet	Dented, cracked, has received a hard knock, chin strap is wearing/tearing.
Riding boots or solid leather work boots for on the ground	Leather, elastic or soles are worn out.
Back protector or protective vest	Torn or cracked, straps are wearing, dented or damaged in a fall.
Gloves	Worn through.
Goggles/facemask	Cracked, age of equipment.

This question was generally very well done. Students needed to provide **both** the equipment and correct signs that it needed to be replaced in order to gain one mark; that is, no mark was awarded for merely naming the equipment. Sufficient detail was also required in the description of the sign – ‘it’s worn out’ was not sufficient.

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Question 17

Marks	0	1	2	3	Average
%	0	4	22	73	2.7

Any six of:

- identification details – sex, colour, weight, height, breed, brands, markings, scars, injuries
- vaccination history
- worming/drenching history
- hoof status – shoes/plates on/off
- rug(s) accompanying the horse
- owner/trainer details/contacts
- spelling, agisting, pregnant/dry mare, training status
- dietary history/needs
- length of time it is due to be in the stable
- vital signs
- pregnancy details
- behavioural details
- training requirements.

One mark was given for every two correct pieces of information. Marks were not awarded if the student had simply repeated the same thing in a different way. Assessors looked for six different **types** of information – six identification details (as in the first dot point above) was not as good an answer as one that covered a range of different types of information as shown in the rest of the list above.

Question 18

Marks	0	1	2	3	Average
%	7	7	28	58	2.4

Any three of:

- the horse is unable/unwilling to put its full weight on the leg
- the horse is stepping short in the near fore – not stretching out as far as the off-fore
- when walking, the horse jerks its head up as it transfers weight over the near fore
- swelling, laceration, heat.

Some students incorrectly gave reasons for lameness—stone in the hoof, etc.—rather than indicators.

Question 19

Marks	0	1	2	Average
%	22	21	57	1.4

19a.

Any one of:

- ensure that processed feed contains 12–14% crude protein; for example, in pellet form
- soften harder feeds; for example, mix pellets with molasses and water to make them easier to chew
- provide with good quality, dampened hay and oaten chaff.

19b.

Either of:

- it will increase the palatability of the feed and ensure correct nutrient intake
- it will increase fat/protein, palatability, and digestibility.

Some description and an explanation were required to receive both marks for this question. Some students seemed to have little knowledge of the digestive process.

Question 20

Marks	0	1	2	3	4	Average
%	1	5	14	32	49	3.3

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Any four of:

- the shoe fits the hoof, so there is no hoof overgrowing the shoe or shoe showing underneath the hoof
- there are no raised nail clenches – the hoof's outer wall is smooth
- the nails are all in a line (not too high or too low)
- the hoof is not cracked or broken away
- the horse is not overreaching, stumbling, etc.
- the hoof is trimmed according to conformation.

Although not common, there were some very poor answers to this question; for example, 'the horse isn't lame'. Some students gave competition-specific requirements, which was outside the parameters of the question.

Question 21

Marks	0	1	2	3	Average
%	16	15	37	32	1.9

21a.

Any of:

- on its side with its feet against the wall
- on its back with its legs in the air (unlikely)
- in a position where it cannot roll back to get on its feet.

21b.

By rolling in the box too close to the wall.

21c.

Either of:

- report it to a supervisor, or get help in some way (do not try to deal with this situation alone)
- two people should use ropes on the front and back legs to roll the horse back over towards them.

Most students knew what 'cast' was but didn't know how to resolve the problem.

Question 22

Marks	0	1	2	Average
%	3	65	32	1.3

Changes to an individual horse's normal resting rate and temperature can indicate illness, injury or level of fitness. The normal temperature can vary between horses.

Some students did not answer for an **individual** horse.

Question 23

Marks	0	1	2	Average
%	9	23	68	1.6

Any two of:

- the horse takes a long time to recover (return to normal)
- the horse is not eating, or eating less than usual, or not cleaning up its feed
- the horse is struggling to move due to muscle cramps
- there is swelling/thickening in the legs, or stretched, torn, or bowed tendons
- the horse is sweating excessively
- the horse is behaving abnormally.

Some students couldn't differentiate between normal exercise reactions and problems. Most of these said 'the horse is sweating/blowing', but that would be expected after any strenuous exercise. One mark was given per indicator, and students needed to list two distinctly different indicators.

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Question 24

Marks	0	1	2	3	4	5	6	7	8	9	10	11	12	Average
%	0	0	1	3	5	5	4	10	9	12	15	15	20	8.9

Condition 1 – colic

Indicators

- excessive rolling
- paddock/box walking
- pawing at the ground
- biting at the stomach
- looking at flanks

Causes

- a sudden change in diet
- eating too close to exercise
- a blockage in the intestines

Condition 2 – laminitis

Indicators

- leaning weight back off its front feet
- reluctance to move
- shuffling movement
- hard, pronounced crest

Causes

- consuming too much energy for the work being done
- working too hard for the horse's level of fitness

Condition 3 – azoturia

Indicators

- dark-coloured urine
- reluctance to move
- muscle trembling, especially on shoulder and hindquarters

Causes

- not reducing feed, particularly grain, when workload is down
- lack of hydration prior to exercise
- varying degrees of sweating, crouching and panting

Some students gave unsatisfactory answers such as 'looking listless or unwell' or 'off its feed', neither of which was specific to the problems given.

Question 25

Marks	0	1	2	3	4	Average
%	17	13	22	19	29	2.3

Any four of:

- carries oxygen from the lungs to the cells of the body
- carries nutrients and water to the cells (from the digestive tract)
- carries carbon dioxide away from the cells
- carries waste products away from the cells to the kidneys
- carries hormones and defence cells
- maintains heat in the body.

This was a straightforward question. Some students incorrectly named the parts of the circulatory system.

Question 26

Marks	0	1	2	Average
%	2	13	85	1.8

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Advantages

- save time
- easier to use, as they are nutritionally balanced and save mixing a lot of different feeds
- save storage space

Disadvantages

- hard to know whether an individual horse's needs are being met exactly
- cannot judge the quality of individual ingredients
- more expensive
- lack of flexibility

Almost all students answered this question correctly. One mark was given for an advantage and one for a disadvantage.