



Victorian Certificate of Education 2011

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Figures

Words

Letter

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VCE VET EQUINE INDUSTRY

Written examination

Tuesday 8 November 2011

Reading time: 11.45 am to 12.00 noon (15 minutes)

Writing time: 12.00 noon to 1.30 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	17	17	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 white out liquid/tape.
- No calculator is allowed in this examination.

Materials supplied

- Question and answer book of 17 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

What is the range of resting respiration rates of a horse?

- A. 1–3 inhalations a minute
- B. 4–7 inhalations a minute
- C. 8–12 inhalations a minute
- D. 13–18 inhalations a minute

Question 2

The area between the toe and the heel of the hoof is known as the

- A. wall.
- B. frog.
- C. quarter.
- D. white line.

Question 3

A horse that is fed concentrates is suddenly unable to work because of lameness or illness.

The concentrates should be

- A. increased by 50%.
- B. cut to a maintenance ration.
- C. decreased by approximately 10%.
- D. replaced with oils and supplements.

Question 4

The primary function of the equine respiratory system is to

- A. provide nutrients for the body and to eliminate wastes.
- B. provide oxygen for the body and to eliminate carbon dioxide.
- C. provide nutrients for the body and to eliminate carbon monoxide.
- D. provide oxygen for the body and to eliminate carbon monoxide gases.

Question 5

Long, sloping pasterns may result in a

- A. bumpy ride but they are generally strong.
- B. nice springy ride but they are liable to strain.
- C. bumpy ride but they are always weak and easily injured.
- D. nice springy ride and they are incredibly strong and rarely strain.

Question 6

Which of the following is most likely to present an occupational health and safety hazard when caring for a horse?

- A. handling veterinary products
- B. observing a horse's behaviour
- C. storing personal protective equipment
- D. recording observations of abnormal behaviour

Question 7

A particular restraint involves a thin cord run over the poll and then either through the mouth or under the upper lip, against the gumline of the upper incisors. In some cases, the lower loop is placed around the horse's muzzle rather than under the lip. A loop is used so that it tightens on the horse's head when the end of the line is pulled. The use of this restraint is considered by some to be a last resort for handling an uncontrollable animal.

What is this restraint called?

- A. a sideline
- B. a war bridle
- C. a hackamore
- D. an anti-rearing bit

Question 8

A particular feed additive

- is rapidly absorbed when given by mouth
- is excreted in the urine as a carbonate and is therefore effective in reducing pain and frequency of urination
- has also been used to improve performance by increasing total carbon dioxide in the blood.

The additive is

- A. biotin.
- B. vitamin D.
- C. potassium citrate.
- D. dicalcium phosphate.

Question 9

Which equine system has protection of organs and production of red blood cells as two of its purposes?

- A. the nervous system
- B. the skeletal system
- C. the muscular system
- D. the circulatory system

Question 10

Which of these colour descriptions is an alternative to buckskin?

- A. dun
- B. roan
- C. cremello
- D. palomino

Question 11

Which of these conditions occurs mainly at a horse's hock?

- A. azoturia
- B. laminitis
- C. dermatitis
- D. arthritis

Question 12

The following steps are often involved when dealing with horse health or a horse emergency.

1. All horses are routinely checked for signs of ill health.
2. Life-threatening conditions are detected and the situation is quickly analysed.
3. Basic emergency or first-aid procedures are carried out until professional help arrives.
4. Ailments requiring emergency treatment are brought to the attention of the manager or veterinarian.

Which of the following places these steps in the most appropriate order?

- A. 3, 4, 1, 2
- B. 1, 3, 2, 4
- C. 1, 2, 4, 3
- D. 3, 1, 2, 4

Question 13

Crude protein in grams per kilogram is lowest in

- A. oats.
- B. peas.
- C. brewer's yeast.
- D. extruded soybean meal.

Question 14

In which part of the equine digestive system are proteins and soluble carbohydrates mainly digested?

- A. caecum
- B. stomach
- C. large intestine
- D. small intestine

Question 15

The following two quotes from riders are about the same element of a horse's movement.

‘Essentially, it is the connection between the horse's hind legs and the rein.’

‘A horse squats like a frog with the two back legs bent and the horse sitting down, tail close to the ground, so it can spring up into action.’

The element is

- A. flexion.
- B. balance.
- C. elevation.
- D. engagement.

Question 16

Which of these first-aid procedures should be carried out first?

- A. apply treatment
- B. catch and calm the horse
- C. restrain and immobilise the horse
- D. determine the safety of the person carrying out the first aid

Question 17

Horses should be handled in a

- A. firm but loud, hurried and gentle manner.
- B. quiet but gentle, calm and hurried manner.
- C. loud but gentle, calm and unhurried manner.
- D. calm but firm, gentle and unhurried manner.

Question 18

Which of the following is a component of the male reproductive system?

- A. epiglottis
- B. epidermis
- C. epistaxis
- D. epididymis

Question 19

Scalping occurs when the

- A. hind foot breakover is delayed.
- B. front foot breakover is delayed.
- C. front foot scrapes up the cannon bone of the hind leg.
- D. hind foot travels down the flexor tendon of the front leg.

Question 20

Oaten hay and oaten chaff

- A. are low in essential amino acids.
- B. are high in essential amino acids.
- C. contain no essential amino acids.
- D. contain the perfect balance of essential amino acids.

SECTION B**Instructions for Section B**

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

Question 1

The following table lists two common signs of good health in a horse.

Complete this table to describe two characteristics of each of these signs.

Sign of good health in a horse	Characteristics
Normal urine	1. 2.
Normal coat condition	1. 2.

4 marks

Question 2

A poultice is a moist dressing or paste that is applied to a sore or injured part of a horse's body.

a. Give an example of a commonly used poultice.

1 mark

b. Explain how this particular poultice acts on the affected area or injury.

3 marks

Question 3

The following table summarises information about the fat-soluble vitamins required by horses.

Complete this table.

Fat-soluble vitamin	Sources
	1. Green pasture 2. Newly made hay
K	1. 2.

3 marks

Question 4

Complete the following table to identify the main components of the equine digestive system and the description of the function of the components given.

Component	Description of function
Mouth	
	With the help of peristalsis, food transfers from mouth to stomach
Caecum	
	Commences the breakdown of food into usable nutrients, allows the nutrients to start to be absorbed

4 marks

Question 5

Using the following list, label the diagrams below.

- plaiting
- elbow hitting
- stargazing
- dishing
- brushing
- overreaching
- forging



1. _____



2. _____



3. _____



4. _____

4 marks

Question 6

A horse is diagnosed by a veterinarian as having a lice problem.

a. Describe two signs that the horse has lice.

1. _____

2. _____

2 marks

The following steps are important in identifying lice infestation and treating an infected horse.

- A. observe horse behaviour and note any abnormalities which may be linked to lice infestation
- B. inspect horse coat for patches of hair loss or raw and bleeding skin particularly around the withers, on the back of the body, the head, mane, tail and fetlocks
- C. treat with medication on veterinary advice
- D. treat all horses that have been housed together or near each other
- E. clean and disinfect or replace all rugs, gear and grooming equipment – replace stable bedding if horse has been stabled

b. Select three of the steps above (A–E) and explain their importance in the lice control program.

4 marks

Question 7

Butalone granules (Bute) is a painkiller and anti-inflammatory frequently prescribed for horses and added to their food by stablehands. It is a relatively safe product but is composed of phenylbutazone, which is classified as a hazardous material, so the manufacturer has to provide a Material Safety Data Sheet. The sheet states that contact with skin and eyes should be avoided.

- a. What is the purpose of a Material Safety Data Sheet?

1 mark

- b. Who is required to have a copy of the Material Safety Data Sheet?

1 mark

- c. List two items of personal protective equipment which should be available to you if you are required to add Bute to a feed.

2 marks

Bute is available in single-dose sachets and in 100 dose containers.

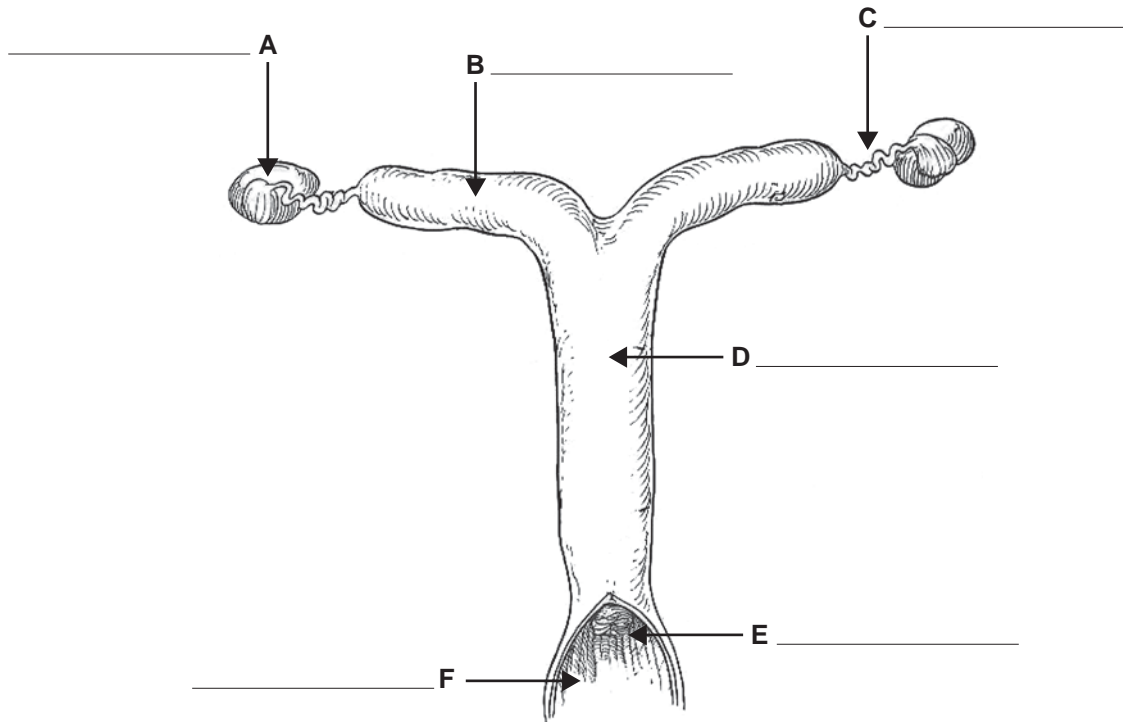
- d. Explain why single-dose sachets would be a safer choice in most cases.

2 marks

Question 8

Label the diagram of the female reproductive tract by selecting from the following list.

- uterus
- cervix
- uterine horn
- follicle
- Fallopian tube
- vagina
- endometrium
- ovary



6 marks

CONTINUES OVER PAGE

Question 9

The following table shows averaged values for a number of food components.

Food	Energy MJ/kg	Protein g/kg	Fibre %	Calcium g/kg	Phosphorus g/kg
Lucerne chaff	9	170	27	13	3
Meadow (grass) chaff	7	85	32	6	4
Oats	12	96	10	1	3
Vegetable oil	38				
Pellets (light to moderate work)	11	110	15	1.2	0.5

A horse has access to some pasture so the owner feeds it oats only twice a day. This means that it might not achieve a desired calcium to phosphorus ratio.

- a. Which one of the following (A–D) is closest to the desired calcium to phosphorus ratio for a five-year-old gelding in moderate work?

	Calcium (g per day)	Phosphorus (g per day)
A	20	40
B	20	60
C	40	20
D	80	20

1 mark

The owner decides to add chaff to the horse’s diet.

- b. Give two reasons why the owner might choose **lucerne** chaff.

2 marks

- c. Later, the owner considers replacing the oats with pellets that are designed for light to moderate work.

- i. Give two reasons why this could be a sensible nutrition decision.

- ii. Describe one nutritional problem linked with this decision and explain how it could be overcome.

2 + 2 = 4 marks

- d. i. Give two reasons why the horse owner would replace some oats with a cup (250 ml) of vegetable oil.

- ii. If a larger amount of vegetable oil is added to a diet it is recommended that vitamin E should be added as a supplement. Why is this recommended?

2 + 1 = 3 marks

The manufacturers provide the following advice for daily feeding weights when a pelleted feed is used.

Horse weight	Maintenance or light work	Moderate work
400 kg	1.5 kg to 3.0 kg	2.0 kg to 4.0 kg
600 kg	2.0 kg to 4.0 kg	3.0 kg to 5.0 kg

- e. Give **two** explanations for the variation from 3.0 kg to 5.0 kg for feeding a 600 kg horse in moderate work.

2 marks

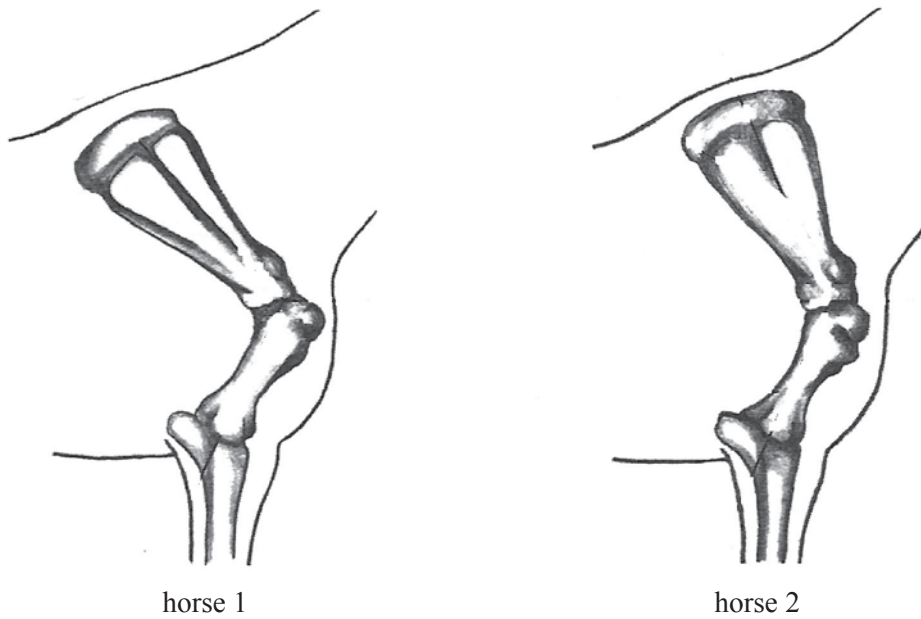
Question 10

Explain how the equine respiratory system assists in temperature control.

1 mark

Question 11

The following diagrams illustrate the shoulders of two horses.



- a. Describe the difference between the anatomy of the two scapulas.

1 mark

- b. Horses with a sloping shoulder generally have longer scapulas, which results in more area for muscle attachment. Explain why this is an advantage.

2 marks

- c.
 - i. A horse with a long, sloping shoulder has a greater range of shoulder movement than a horse with an upright shoulder. Explain how this is an advantage to a galloping horse.

- ii. In some activities muscles pull the scapula down and back to a more horizontal position. Explain why this would be an advantage in showjumping.

2 + 1 = 3 marks

Question 12

Strangles is caused by a bacterium and it is a significant infectious respiratory disease in Australia and New Zealand.

- a. How frequently should horses be vaccinated against strangles after completing the initial course?

1 mark

- b. It has been claimed that this vaccination does not provide complete protection against all strains of strangles. If this is true, give two reasons why vaccination is still required.

2 marks

Question 13

List three signs that a distressed horse could exhibit.

3 marks

Question 14

Certain organs provide links between the circulatory system and the respiratory system.

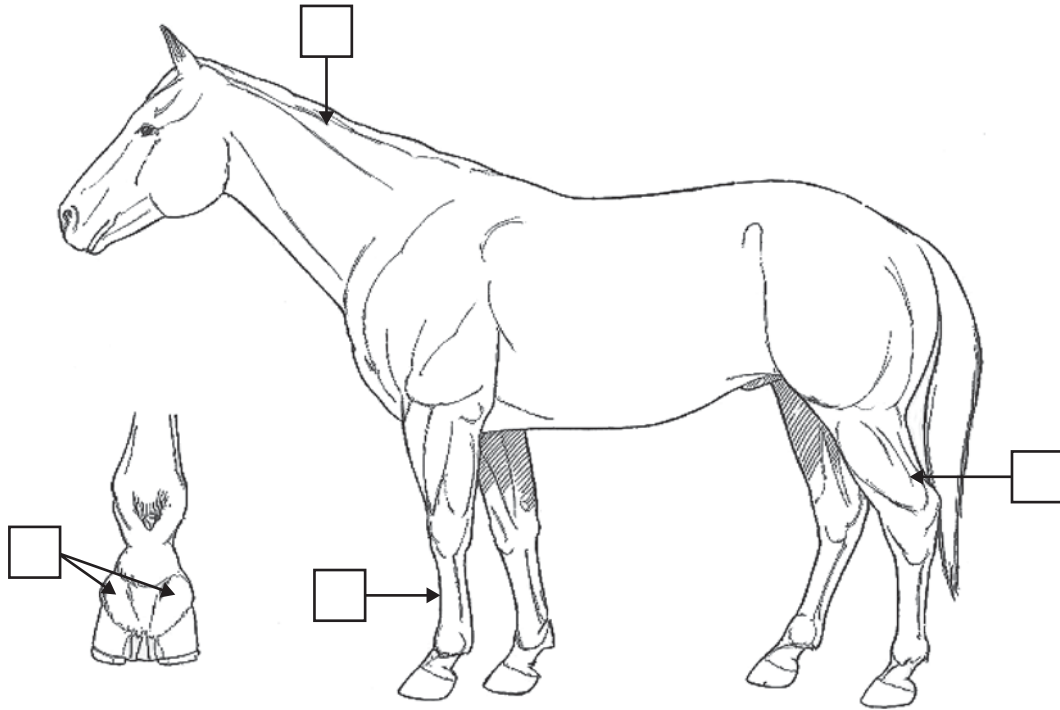
Identify one such organ and describe how the linkage occurs.

2 marks

Question 15

a. The diagram shows the location of four important ligaments and tendons. For each, select their correct name from the list below and write the corresponding letter on the diagram.

- A. nuchal ligament
- B. suspensory ligament
- C. proximal digital annular ligament
- D. common digital extensor tendon
- E. Achilles tendon
- F. deep digital flexor tendon



4 marks

b. Select from the list below the appropriate name for each movement.

- adduction
- abduction
- rotation
- extension
- flexion

1. Bending

2. Straightening

3. Moving inwards towards the centre of the body

3 marks

c. i. What is the major difference between a tendon and a ligament?

ii. What is the purpose of a check ligament?

1 + 1 = 2 marks

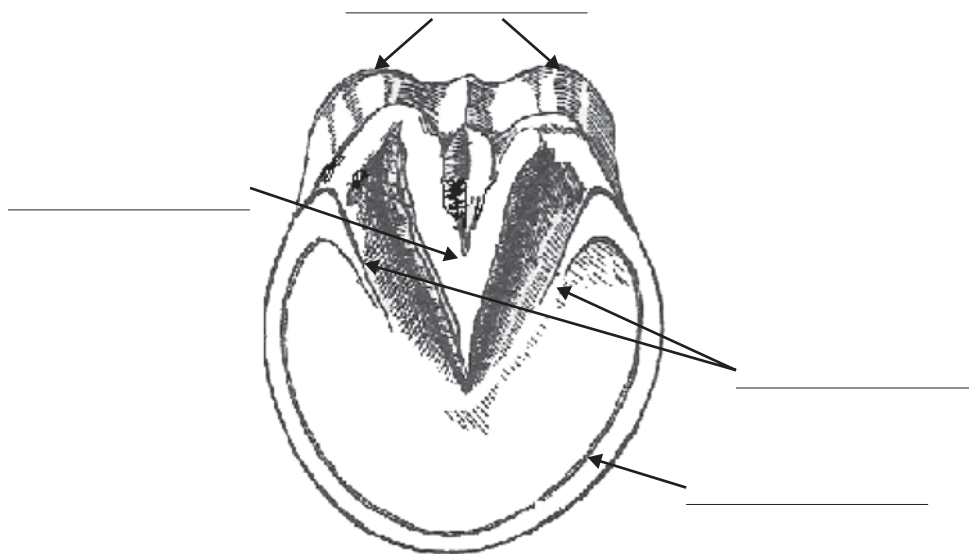
Question 16

List three records that might need to be kept for a horse with an existing injury that has just arrived on a property.

3 marks

Question 17

Label the following diagram of the hoof.



4 marks