Wednesday 5 June 2019

Morning (Time: 1 hour 30 minutes) | Paper Reference **20108K**

Equine Management

Unit 1: Equine Structure, Form and Function

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and learner registration number.
- Answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶

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Pearson

Answer ALL questions. Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 **Figure 1** shows the anatomy of the equine front leg.

(a) Label bones A and B in **Figure 1** using the boxes provided.

(2)

A ....

B ....

Figure 1

Figure 2 shows the internal structure of the hoof and lower leg.

Four structures have been labelled: A, B, C and D.
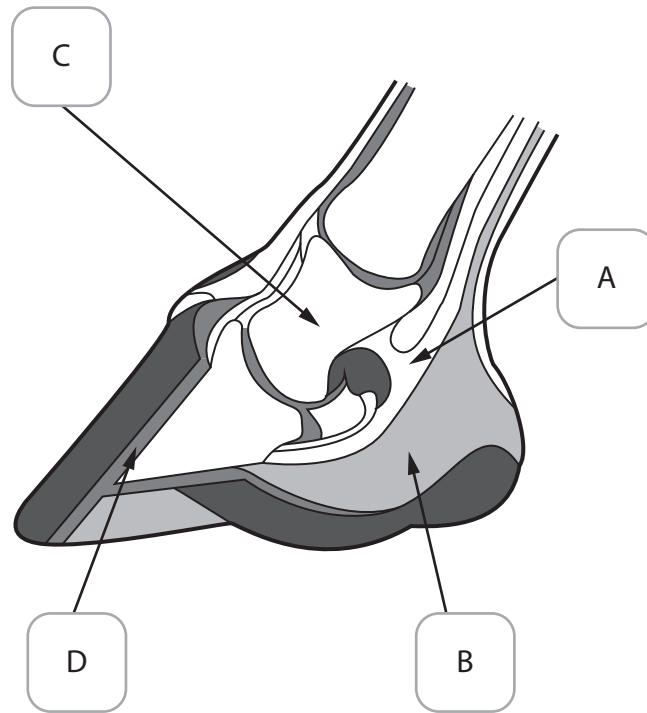
Figure 2

(b) Identify the deep digital flexor tendon (DDFT).

(1)

☒ **A**

☒ **B**

☒ **C**

☒ **D**

(c) Describe **two** ways the structure of tendons aid their function.

(4)

1 ....

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2 ....

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(d) Explain the function of the suspensory ligament.

(2)

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(Total for Question 1 = 9 marks)

2 **Figure 3** shows a cross section of a stallion's reproductive system.

A ....

B ....
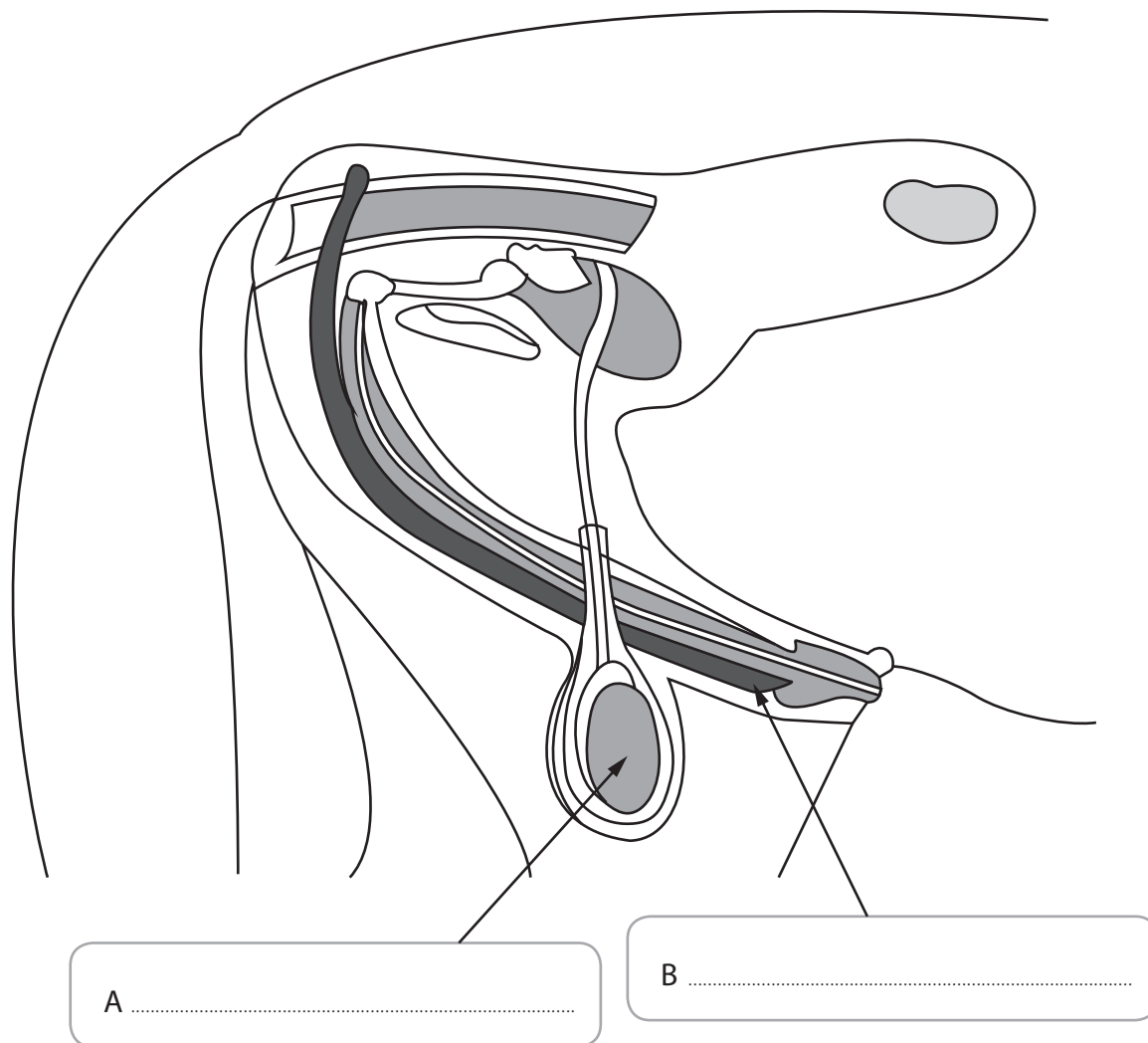
Figure 3

(a) Identify structures A and B in **Figure 3** by labelling the boxes provided.

(2)

(b) Explain **two** features of a stallion's penis which aids reproduction.

(4)

1 ....

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2 ....

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(c) Describe the movement of an ovum (egg) through the mare's reproductive system.

(4)

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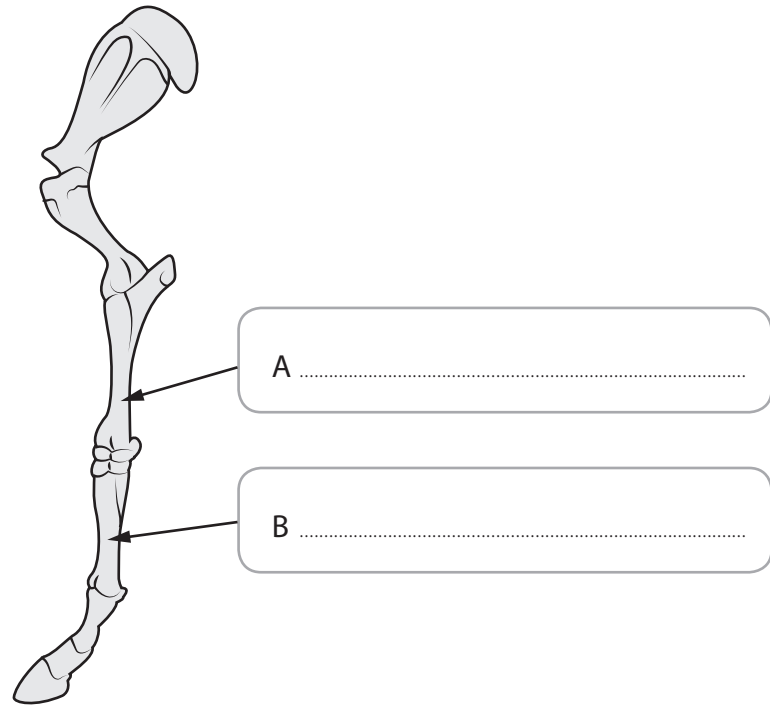
(Total for Question 2 = 10 marks)

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3 (a) Explain **one** function of the equine eyelid.

(2)

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(b) Explain **two** features of the equine eye that allow horses to see in low levels of light.

(4)

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(c) Explain what is meant by **monocular vision**.

(2)

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(d) Explain **two** features of the equine eye that allow images to be focused.

(4)

1 ....

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2 ....

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(Total for Question 3 = 12 marks)

4 (a) Explain the role of the hormone oxytocin.

(2)

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(b) Explain **two** roles of the adrenal glands.

(4)

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(c) Describe how the equine body responds to an increase in blood glucose levels.

(4)

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(Total for Question 4 = 10 marks)

5 Discuss equine conformation faults.

(Total for Question 5 = 8 marks)

6 (a) State **one** function of arteries.

(1)

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(b) Describe **two** ways to measure cardiovascular output.

(4)

1 ....

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2 ....

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(c) Describe how the equine heart rate is controlled during increased exercise.

(4)

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(d) Compare red and white blood cells.

(4)

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(Total for Question 6 = 13 marks)

7 (a) State **two** muscles found in the equine neck or shoulder.

(2)

1 ....

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2 ....

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(b) Describe the structure of cardiac muscle.

(4)

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(c) Describe the structure of long bones.

(4)

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(Total for Question 7 = 10 marks)

8 During respiration, oxygen and carbon dioxide are exchanged between blood and tissues.

Discuss how the Bohr effect impacts this exchange.

(8)

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(Total for Question 8 = 8 marks)

TOTAL FOR PAPER = 80 MARKS