Vrite your name here	
Surname	Other names
Cearson BTEC Level 3 Islationals, Extended Certificate, Foundation Diploma, Diploma, Extended Diploma	Learner Registration Number
Fauina Mana	aamant
Equine Mana Unit 1: Equine Structure, F	

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

Figure 1 shows the skeleton of an equine.

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

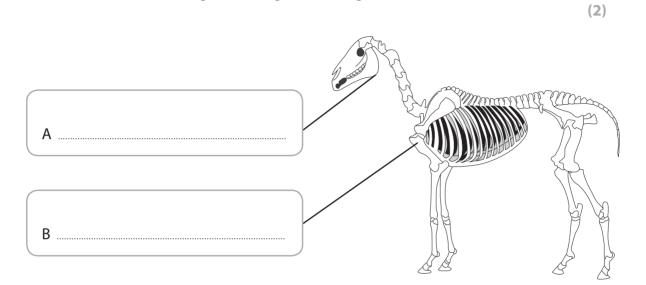


Figure 1

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Figure 2 shows the external structure of bone. Four structures have been labelled, A, B, C and D.

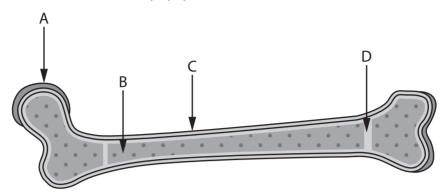


Figure 2

(b) Identify the spongy bone in figure 2.

(1)

- \times A
- ⊠ B
- ⊠ C
- □ D
- (c) Explain **two** functions of bones.

(4)

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(d) Explain what a facet is in relation to bones.

(2)

•••	 	 	 	 • • • • • • • •	 	 •	 	• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	 •	• • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	 	 •••••							

(Total for Question 1 = 9 marks)

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2 Figure 3 shows a cross-section of an equine eye.

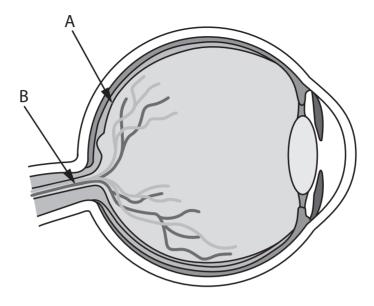


Figure 3

(a) Identify structures A and B in Figure 3.

	(2)
A	
В	
(b) Explain two features of the pupil that aid vision in equines.	
(b) Explain two leatures of the pupil that aid vision in equilies.	(4)
1	
2	

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(c) Describe the role of the tapetum lucidum.	(4)
	(Total for Question 2 = 10 marks)

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3 (a) Explain one behavioural sign of a mare being in heat.	(2)
(b) Describe the process of fertilisation of the egg during reproduction.	(4)

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Figure 4 outlines hormonal changes during the equine oestrus cycle. Progesterone PGF2a Oestrogen **FSH** DAY: 2 4 8 12 14 16 18 -2 6 10 20 22 **OESTRUS OESTRUS CURRENT** Ovulating Developing Maintained Regressing **Ovulating OVARIAN Follicle** Follicle CL CL CL **ACTIVITY:** Figure 4 (c) State the **two** days when ovulation occurs. (2) Decreasing levels of oestrogen can cause a number of changes. (d) Explain **two** effects that occur as a result of decreasing levels of oestrogen. (4) (Total for Question 3 = 12 marks)



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4	(a) Describe the location of the pituitary gland in equines.	(2)
1	(b) Explain two links between the pituitary gland and reproduction.	(4)
	(c) Describe the effect of antidiuretic hormone (ADH) in equines.	(4)
	(Total for Question 4 = 10 ma	nrks)

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(Total for Question 5 = 8 marks)



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6 (a)	State one location of a gliding joint in an equine.	(1)
(b)	Describe how the structure of a joint allows movement.	(4)
(c)	Explain how antagonistic muscles function to provide movement.	
(c)	Explain how antagonistic muscles function to provide movement.	(4)
(c)		
(c)	Explain how antagonistic muscles function to provide movement.	
(c)		
(c)		

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(d) Compare the structure and function of ligaments and tendons.	(4)
(Total for Question)	on 6 = 13 marks)



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7	Effective thermoregulation is essential for equines.	
	(a) State two behavioural changes that may be seen when a horse becomes too cold.	
		(2)
1		
2		
	(b) Explain how vasodilation helps maintain a constant temperature.	(4)
	(c) Describe the role of hair in maintaining an equine's temperature.	(4)
		(- /
	(Total for Question 7 = 10 mar	ks)

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An equine body comprises millions of cells, forming different types of tissue.					
8 Discuss how the shape of cells are related to tissue function					
(То	tal for Question 8 = 8 marks)				
ТО	TAL FOR PAPER = 80 MARKS				



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