



ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2010

Centre Number

71

Candidate Number

Health and Social Care

Assessment Unit AS 14

assessing

Unit 14: Understanding Human Physiology

[A3H81]

THURSDAY 27 MAY, AFTERNOON



A3H81

TIME

2 hours.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.
Answer **all four** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 100.

Quality of written communication will be assessed in questions **2(b)**, **3(a)(iii)**, **3(b)**, **4(a)(iii)** and **4(b)(iii)**.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

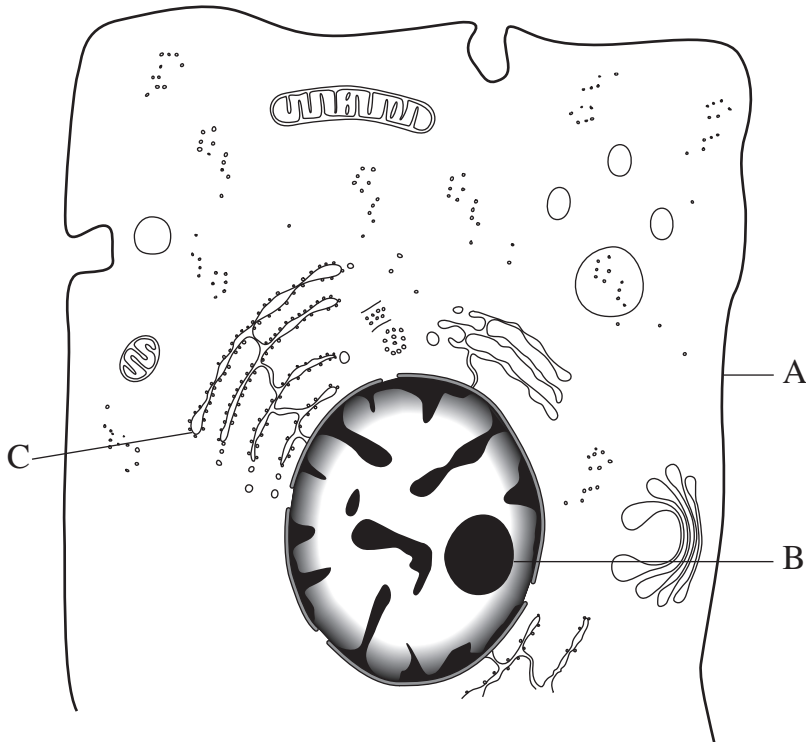
For Examiner's
use only

Question Number	Marks
1	
2	
3	
4	

Total
Marks

1 (a) This is a diagram of a typical human body cell.

Examiner Only	
Marks	Remark



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Write down the name and **one** function of A, B and C.

A Name: _____ [1]

Function: _____

_____ [1]

B Name: _____ [1]

Function: _____

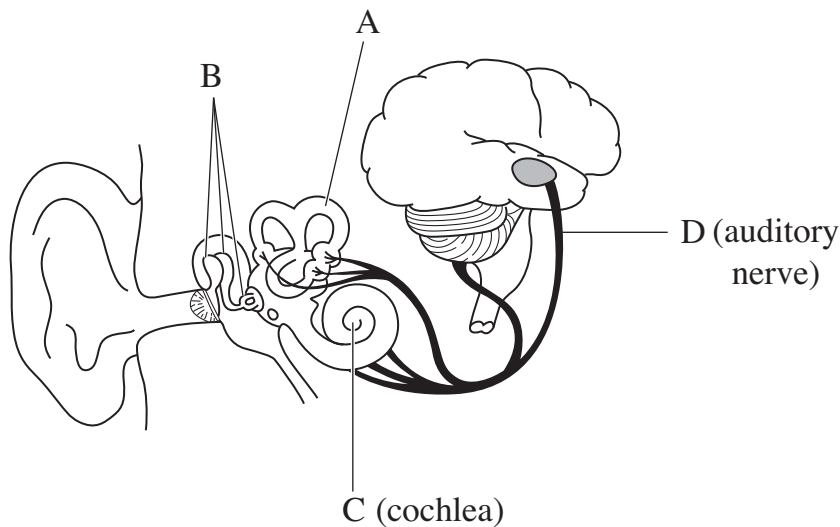
_____ [1]

C Name: _____ [1]

Function: _____

_____ [1]

(b) This is a diagram of the human ear.



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(i) Write down the name and **one** function of parts A and B.

A Name: _____ [1]

Function: _____

_____ [1]

B Name: _____ [1]

Function: _____

_____ [1]

(ii) Use the diagram to discuss how sound is transmitted from C to D.

_____ [3]

Examiner Only	
Marks	Remark

(c) Stephan, aged 14, has conductive hearing loss. He also has myopia.

(i) Write down two causes of conductive hearing loss.

1. _____ [1]

2. _____ [1]

(ii) Explain how myopia may affect Stephan's vision.

_____ [2]

(iii) Discuss two ways that Stephan's life may be affected by his hearing and vision disabilities.

1. _____

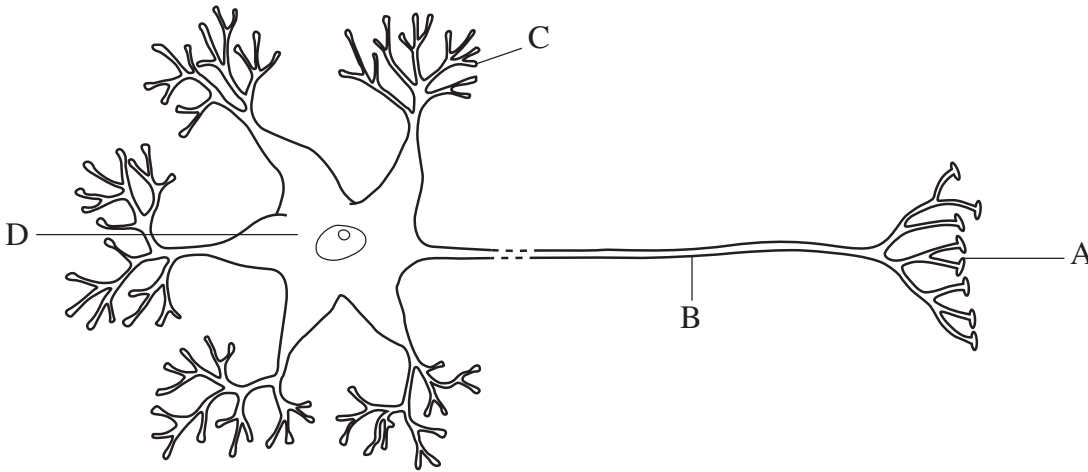
_____ [3]

2. _____

_____ [3]

Examiner Only	
Marks	Remark

2 This is a diagram of a neurone.



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(a) Write down the name and function of parts A, B, C and D.

A Name: _____ [1]

Function: _____

_____ [1]

B Name: _____ [1]

Function: _____

_____ [1]

C Name: _____ [1]

Function: _____

_____ [1]

D Name: _____ [1]

Function: _____

_____ [1]

Examiner Only	
Marks	Remark

(b) James was out walking when attacked by a dog. He panicked and jumped over a wall.

Discuss the role of each of the following in James's reactions.

(i) The adrenal gland

[6]

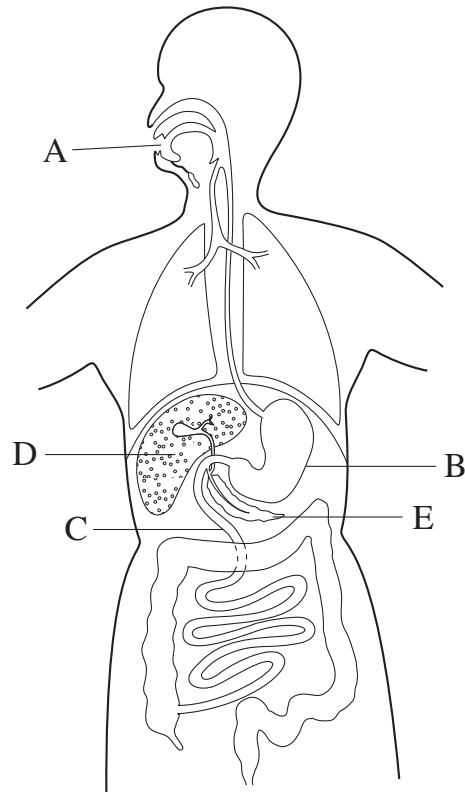
Examiner Only	
Marks	Remark

(ii) A reflex action

[6]

Examiner Only	
Marks	Remark

3 This is a diagram of the digestive system.



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(a) (i) Identify A, B and C in the diagram and write down the name of **one** enzyme present in each.

A Name: _____ [1]
Enzyme: _____ [1]

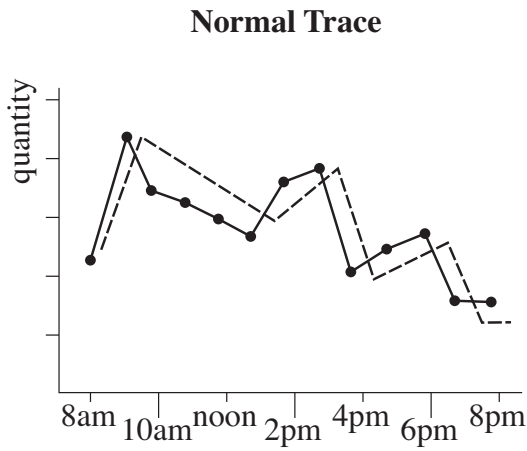
B Name: _____ [1]
Enzyme: _____ [1]

C Name: _____ [1]
Enzyme: _____ [1]

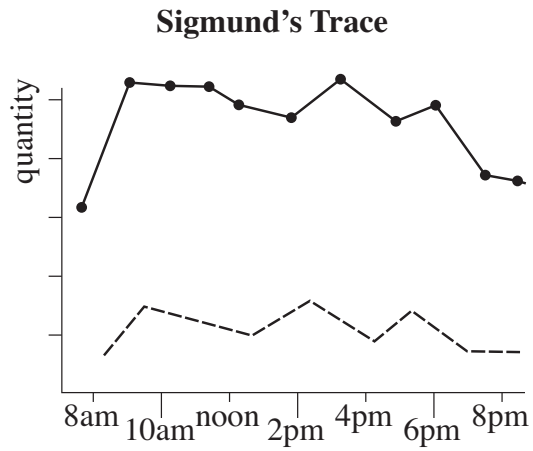
Examiner Only	
Marks	Remark

(b) Sigmund has been feeling unwell for some time. The hospital monitored his blood glucose and insulin levels for one day to find out if he has Type 1 diabetes. The results of the monitoring are recorded in the graphs below.

Examiner Only	
Marks	Remark



Key:
 — blood glucose
 ---- concentration of hormone



Key:
 — blood glucose
 ---- concentration of hormone

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Analyse the results to discuss if Sigmund has Type 1 diabetes.

THIS IS THE END OF THE QUESTION PAPER

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