



Rewarding Learning
ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2009

Centre Number

71	
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Candidate Number

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Health and Social Care

Assessment Unit AS 14

assessing

Unit 14: Understanding Human Physiology

[A3H81]

TUESDAY 9 JUNE, 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, 3 and 4**.

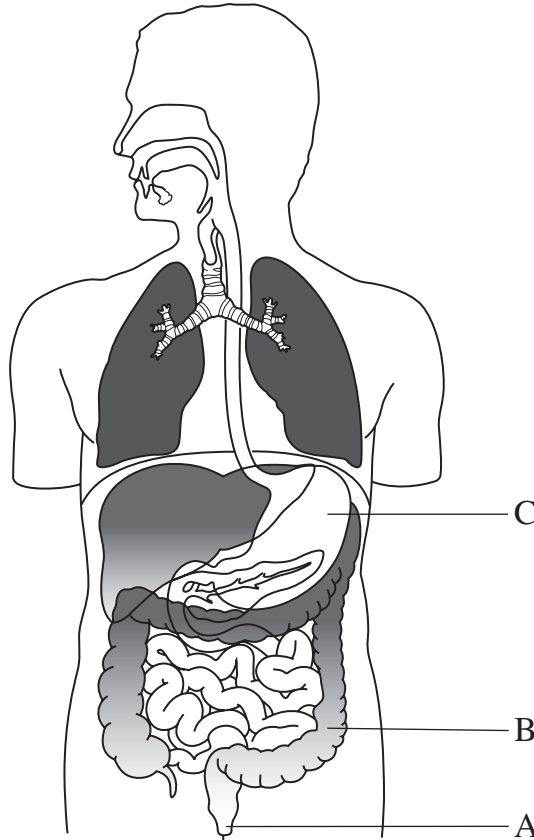
Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	

Total Marks	
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1 (a) This is a diagram of the digestive system.

Examiner Only	
Marks	Remark



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

A Name : _____ [1]

Function : _____
 _____ [1]

B Name : _____ [1]

Function: _____
 _____ [1]

C Name : _____ [1]

Function : _____
 _____ [1]

(b) Daniel, aged 32, has a peptic ulcer and takes medication daily.

(i) Write down two possible symptoms of a peptic ulcer.

1. _____
_____ [1]

2. _____
_____ [1]

(ii) Discuss how a stomach ulcer develops.

_____ [3]

Examiner Only	
Marks	Remark

_____ [3]

(b) Gita, aged 49, is having tests for endocrine dysfunction so her pancreas and thyroid functions are being investigated.

(i) Write down the name of **one** hormone secreted by each endocrine gland.

Thyroid _____ [1]

Pancreas _____ [1]

(ii) Gita is diagnosed as having Type II diabetes.

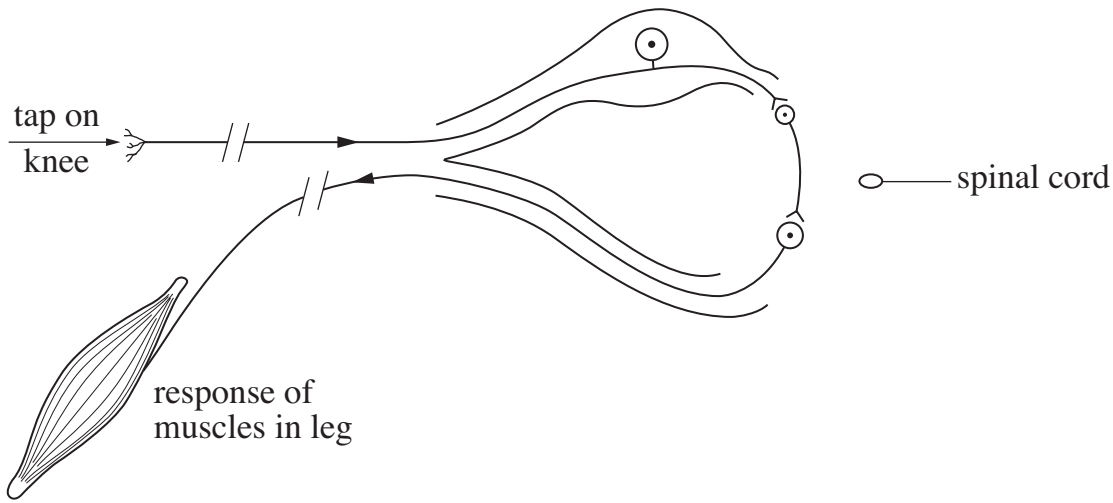
Explain one way Type I diabetes differs from Type II diabetes.

_____ [2]

Examiner Only	
Marks	Remark

(iv) Gita also had a reflex test, which was done by tapping her knee with a small hammer.

Use the diagram below to discuss how Gita's nervous system should respond to the test.



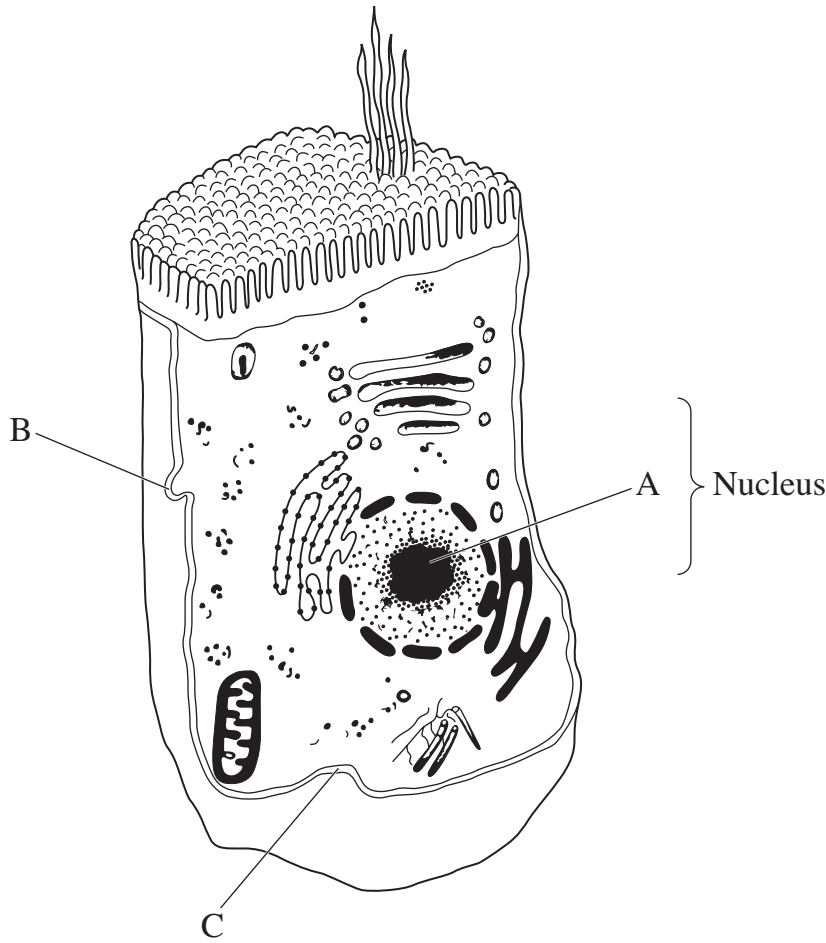
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[6]

Examiner Only	
Marks	Remark

3 This is a diagram of a human body cell.

Examiner Only	
Marks	Remark



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

A. Name: _____ [1]

Function: _____

_____ [1]

B. Name: _____ [1]

Function: _____

_____ [1]

C. Name: _____ [1]

Function: _____

_____ [1]

(b) Katya has been diagnosed with cirrhosis of the liver.

(i) Explain one cause of cirrhosis of the liver.

_____ [2]

(ii) Write down two symptoms of cirrhosis of the liver.

1. _____ [1]

2. _____ [1]

(iii) Katya’s doctors are concerned with her state of health as the liver has several important functions in the body.

Explain the role of the liver in digestion.

_____ [2]

(iv) Discuss how the liver aids the elimination of poisons from the body by deamination.

_____ [3]

Examiner Only	
Marks	Remark

[9]

Examiner Only	
Marks	Remark

[Turn over

4 (a) Jack, aged 70, has glaucoma resulting in limited vision.

(i) Write down two symptoms of glaucoma.

- 1. _____

- 2. _____
_____ [2]

(ii) Discuss what happens in the eye to cause glaucoma.

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____ [3]

(iii) Explain how the eye accommodates to see far objects.

- _____
- _____
- _____
- _____ [2]

Examiner Only	
Marks	Remark

(b) An optician has kept records of her clients' ability to read at near distances with age. The table below summarises her results:

Average age (years)	Average nearest reading distance (cm)
10	6
15	7
40	25
50	50
60	55
70	55

Use the table to analyse the relationship between age and average reading distance.

[6]

Examiner Only	
Marks	Remark

(c) Last winter, Molly, aged 90, was admitted to hospital with hypothermia.

(i) Discuss what is meant by hypothermia.

_____ [3]

(ii) Discuss why older people like Molly can be more at risk of developing hypothermia than younger adults.

Examiner Only	
Marks	Remark

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