



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

**Centre Number**

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**Candidate Number**

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# Health and Social Care

Assessment Unit AS 7  
*assessing*  
 Understanding the Physiology of  
 Health and Illness



## [SHC71] Assessment

**TIME**

2 hours.

**Assessment Level of Control:**

Tick the relevant box (✓)

Controlled Conditions	
Other	

**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 three** questions.

**INFORMATION FOR CANDIDATES**

The total mark for this paper is 100.  
 Quality of written communication will be assessed in questions **1(d)(iii), 2(c) and 2(e)**.  
 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	
<b>Total Marks</b>	





(c) When specialised cells group together to perform a function, they are called tissues. Complete the table below to give the name, function or area of the body where the tissue is commonly found.

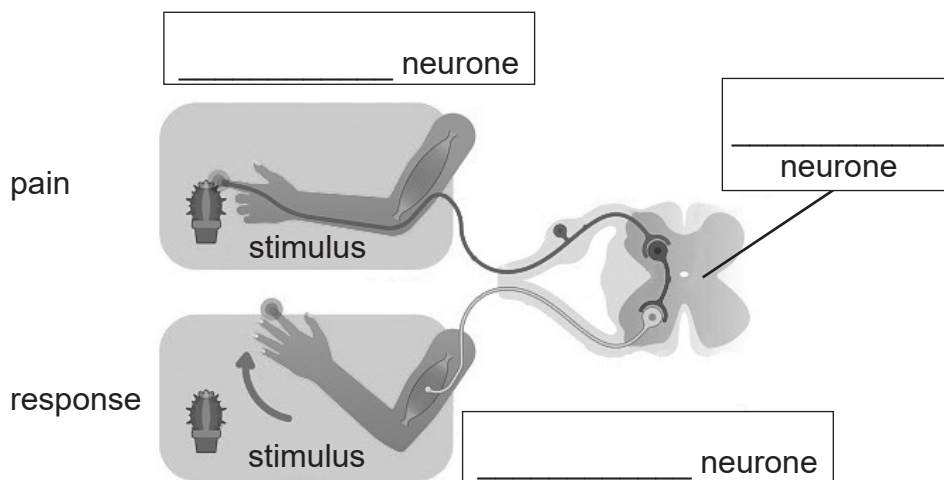
Name of tissue	Function	Area of the body where the tissue commonly found
Cardiac muscle	A special type of muscle that contracts without nervous stimulation	
	Gives strength and flexibility to skeleton	At the end of bone in joints, e.g. the knee
Adipose		Around organs and beneath the skin

[3]

Examiner Only	
Marks	Remark

(d) The motor neurone is one of three neurones involved in the reflex arc. The diagram below shows a reflex arc.

(i) On the diagram, label the motor neurone, the association neurone and the sensory neurone.



© Getty Images

[3]

(ii) Explain why reflex responses like the one shown in the diagram are an advantage to the body.

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[2]

Examiner Only	
Marks	Remark



















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**(Questions continue overleaf)**



- (b) (i) Complete the paragraph below to show how blood glucose levels are controlled.

After a meal, blood glucose levels rise. This rise is detected by organ **A**. The organ then releases the hormone \_\_\_\_\_, which travels to the \_\_\_\_\_ and reduces the amount of blood glucose by converting the glucose to \_\_\_\_\_. The hormone also increases the uptake of glucose by cells and increases the rate of respiration. After some time, the blood glucose levels will begin to fall below normal as all the available glucose has been used up in respiration. Organ **A** will then release a second hormone called \_\_\_\_\_. This causes the stored glycogen to be broken down into glucose. The glucose is then released from the liver into the \_\_\_\_\_ and carried to the cells in the body where it is needed. [5]

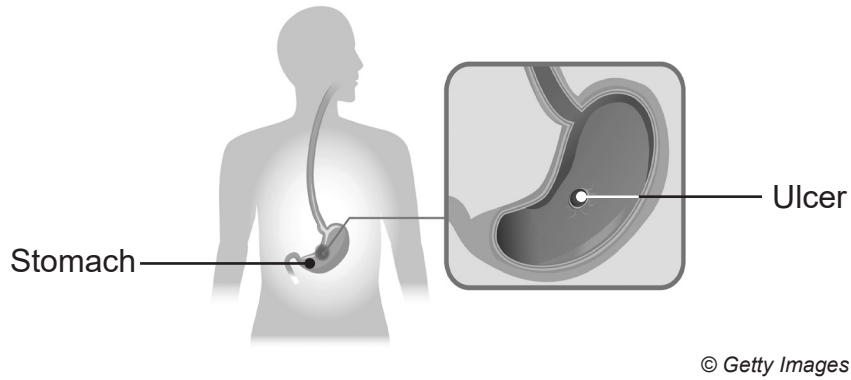
- (ii) Complete the sentence below.

The normal level of blood glucose is between \_\_\_\_\_ mmol/dm<sup>3</sup> and \_\_\_\_\_ mmol/dm<sup>3</sup>. [2]

Examiner Only

Marks Remark

(c) John has recently developed a stomach ulcer. The diagram below shows a stomach ulcer.



Examiner Only

Marks Remark

(i) Describe how a stomach ulcer develops.

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[3]

(ii) Suggest how John may have to adapt his diet.

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[3]

(iii) Explain how having a stomach ulcer may impact on John's work.

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[2]



(ii) Describe how amino acids are deaminated in the liver.

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[3]

Examiner Only	
Marks	Remark







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