

New
Specification



Rewarding Learning
ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2017

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

[SHC71]
WEDNESDAY 24 MAY, MORNING

TIME

2 hours.

INSTRUCTIONS TO CANDIDATES

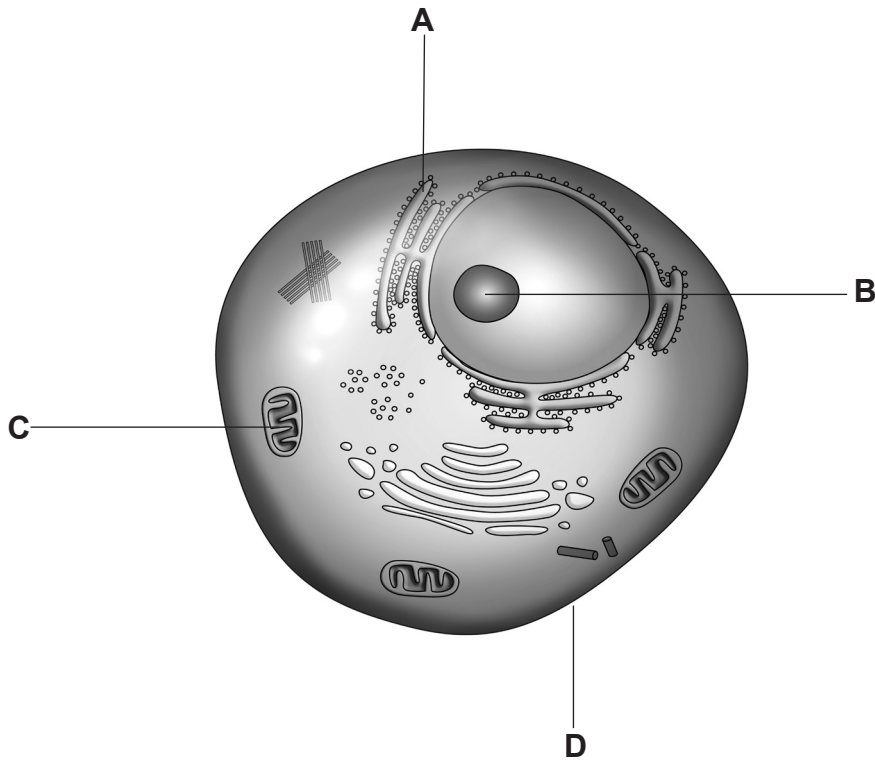
Write your Centre Number and Candidate Number in the spaces provided at the top of this page.
Write your answers in the spaces provided in this question paper.
Answer **all three** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 100.
Quality of written communication will be assessed in questions **1(d)(ii)**, **3(b)** and **3(f)**.
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	
Section A	
Question Number	Marks
1	
2	
3	
Total Marks	

1 The diagram below shows the structure of a generalised animal cell.



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(a) (i) Name the structures labelled **A**, **B**, **C** and **D**.

- A _____ [1]
- B _____ [1]
- C _____ [1]
- D _____ [1]

(ii) Explain the link between the functions of **A** and **B**.

_____ [2]

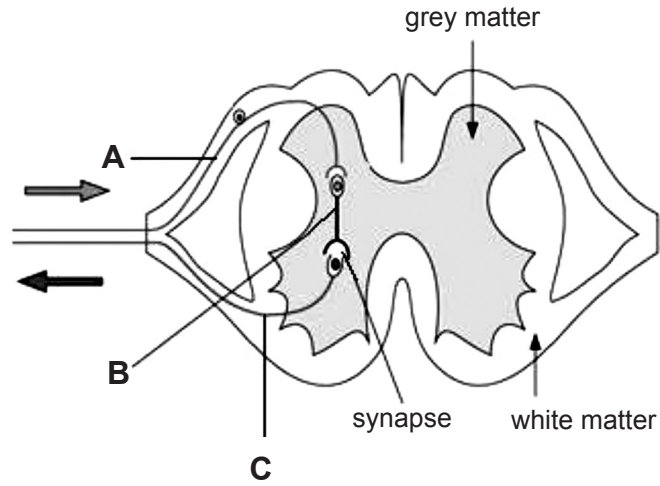
Examiner Only	
Marks	Remark

(iii) Structure **C** is found in large numbers in a muscle cell. Explain why a muscle cell has so many of these.

[2]

Examiner Only	
Marks	Remark

(c) The diagram below shows three neurones involved in a reflex arc and how they interact within the spinal cord.



© CCEA

(i) Write down the names of the neurones labelled **A**, **B** and **C**.

A _____ [1]

B _____ [1]

C _____ [1]

Examiner Only	
Marks	Remark

[6]

Examiner Only	
Marks	Remark

- 2 (a) A tissue is a group of cells working together to perform a common function. Match each of the connective tissues with its description by joining them with a line.

Bone

Found in areas that need strength and flexibility

Adipose

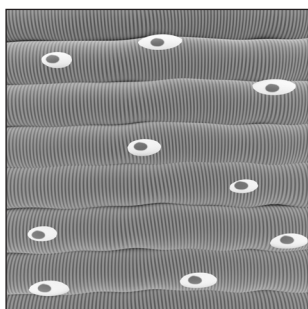
Made up mainly of collagen and minerals

Cartilage

Provides insulation and an energy store

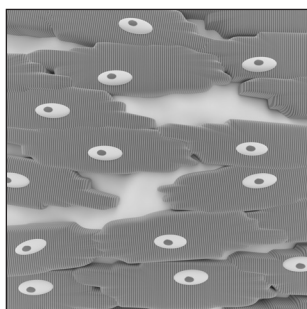
[3]

- (b) Write down the name of each of the muscle tissues shown below.



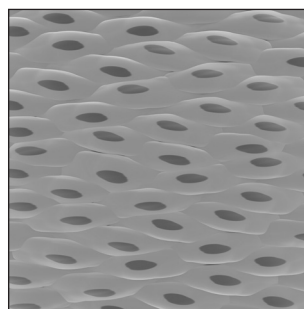
© Science Photo Library

muscle tissue [1]



© Science Photo Library

muscle tissue [1]



© Science Photo Library

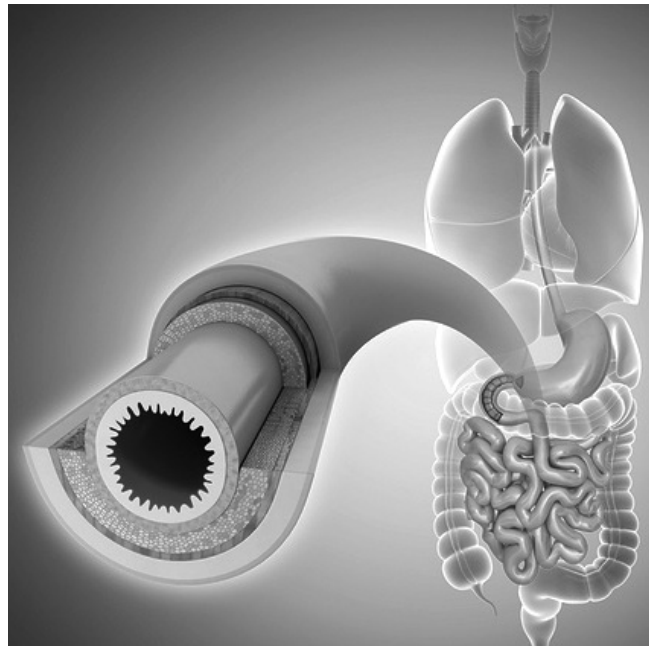
muscle tissue [1]

Examiner Only	
Marks	Remark

(e) Elaine has recently experienced stomach pain after eating. Doctors suspect she may have a stomach ulcer. Describe the physiological process that leads to the development of a stomach ulcer.

[3]

(f) The diagram below shows a cross section of the ileum (small intestine).



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Describe how the ileum is adapted to allow faster absorption of food into the bloodstream.

[3]

Examiner Only	
Marks	Remark

(d) Describe how type 1 diabetes should impact on a person's diet.

[3]

(e) Paul, aged 59, has worked as a car mechanic for 37 years and has owned his own business (which he runs with his son) for the past 15 years. He recently had an ischemic stroke and as a result the right side of his body is paralysed.

(i) Describe the physiological cause of an ischemic stroke.

[3]

Examiner Only	
Marks	Remark

THIS IS THE END OF THE QUESTION PAPER

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