

Principles of Organisation

Question Paper

Level	GCSE (9-1)
Subject	Combined Science: Trilogy - Biology
Exam Board	AQA
Topic	4.2 Organisation
Sub-Topic	Principles of Organisation
Difficulty Level	Silver Level
Booklet	Question Paper

Time Allowed: 18 minutes

Score: /18

Percentage: /100

Grade Boundaries:

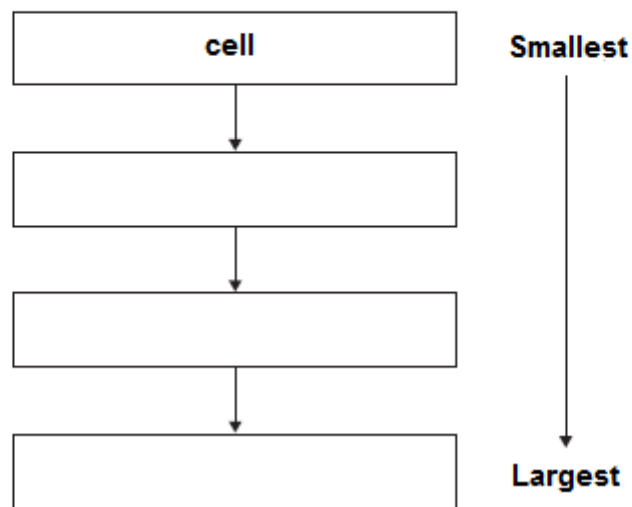
Q1. The human body is organised to carry out many different functions.

- (a) Use words from the box to complete **Figure 1** by putting the parts of the body in order of size from smallest to largest.

The smallest one has been done for you.

cell	organ system	organ	tissue
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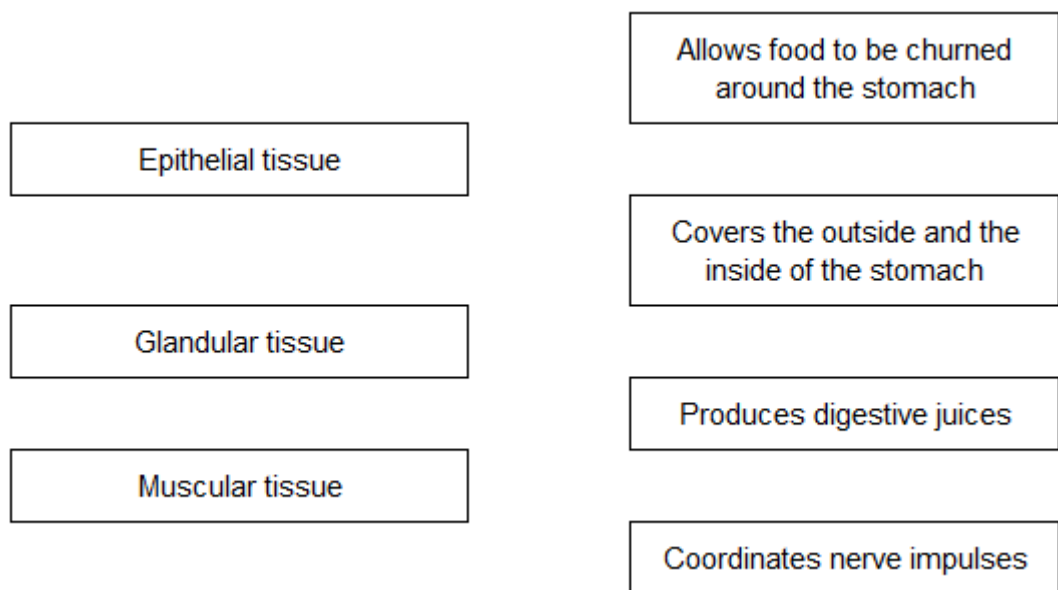
Figure 1



(2)

- (b) The stomach is made of different types of tissue.

Draw **one** line from each type of stomach tissue to the correct description.



(3)

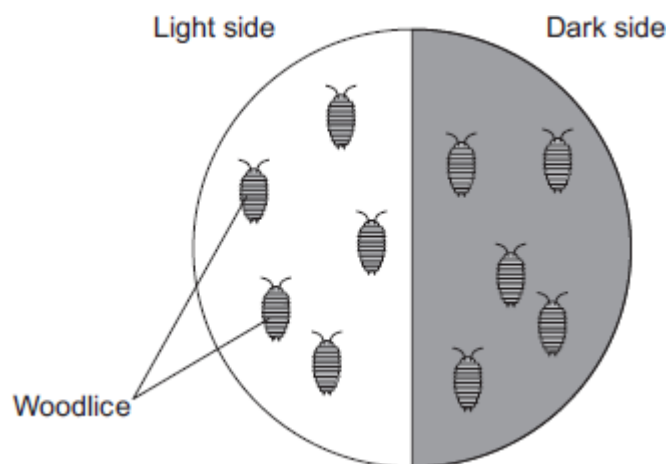
- (c) Animals can react to their surroundings because they have nervous systems.

A student investigated the behaviour of small animals called woodlice.

The student set up the investigation as shown in **Figure 2**.

- The student covered one half of a Petri dish with black paper to make that side of the Petri dish dark.
- The other side had no cover.
- The student put five woodlice into each side of the dish and then put the clear Petri dish lid back on the dish.

Figure 2



After 30 minutes, all the woodlice had moved to the dark side of the Petri dish.

- (i) In this investigation, what is the **stimulus** that the woodlice responded to?

.....

(1)

- (ii) In this investigation, what is the **response** that the woodlice made?

.....

(1)

- (iii) The student concluded that woodlice prefer dark conditions.

Give **two** ways in which the student could improve the investigation to be sure that his conclusion was correct.

1.....

.....

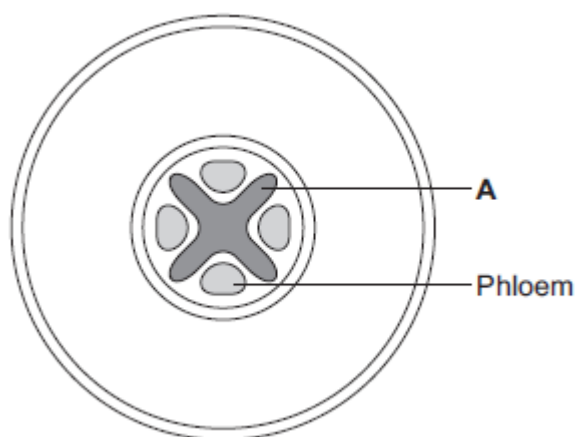
2.....

.....

(2)

(Total 9 marks)

Q2. The diagram below shows a cross-section of a plant root. The transport tissues are labelled.



- (a) (i) What is tissue **A**?

Draw a ring around the correct answer.

cuticle

epidermis

xylem

(1)

- (ii) Name **two** substances transported by tissue **A**.

1

2

(2)

- (b) Phloem is involved in a process called translocation.

- (i) What is translocation?

.....
.....
.....

(1)

- (ii) Explain why translocation is important to plants.

.....
.....
.....
.....

(2)

- (c) Plants must use active transport to move some substances from the soil into root hair cells.

- (i) Active transport needs energy.

Which part of the cell releases most of this energy?

Tick (✓) **one** box.

mitochondria	<input type="checkbox"/>
nucleus	<input type="checkbox"/>
ribosome	<input type="checkbox"/>

(1)

(ii) Explain why active transport is necessary in root hair cells.

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.....

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(2)

(Total 9 marks)