



GCSE Biology

Principles of Organisation

Question Paper

Time available: 25 minutes

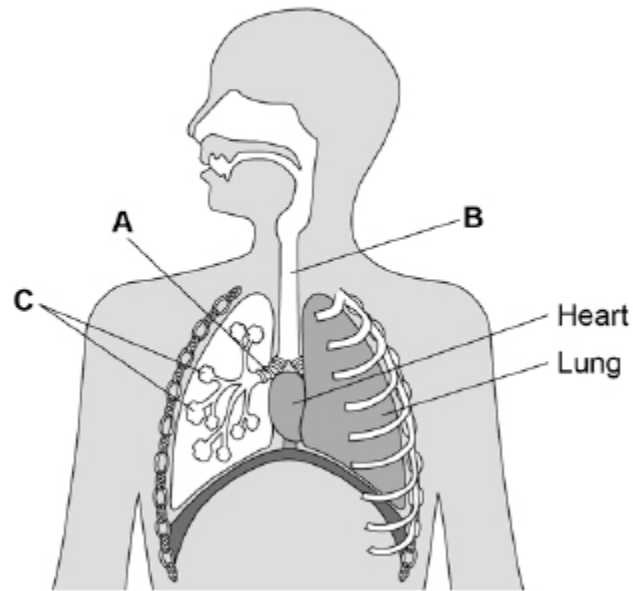
Marks available: 21 marks

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1. Animals and plants contain organs and tissues.

Figure 1 shows some organs in the human thorax.

Figure 1



(a) Name parts **A**, **B** and **C**.

A _____

B _____

C _____

(3)

(b) Which organ system is the heart part of?

Tick **one** box.

Breathing system

Circulatory system

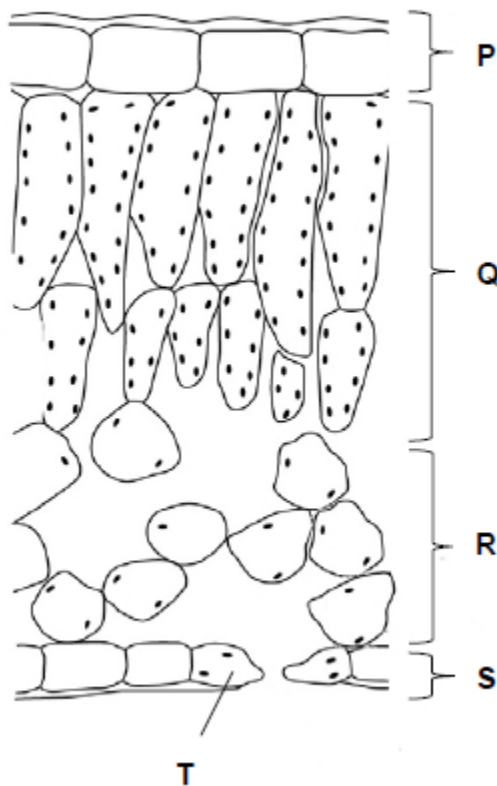
Digestive system

Excretory system

(1)

Figure 2 shows a cross section of a leaf.

Figure 2



(c) In which part of the leaf does most photosynthesis take place?

Tick **one** box.

P Q R S

(1)

(d) What is part **T**?

Tick **one** box.

- Guard cell
- Phloem
- Stoma
- Xylem

(1)

(e) A leaf is an organ made of tissues.

What is a tissue?

(1)

(f) Draw **one** line from each tissue to its function.

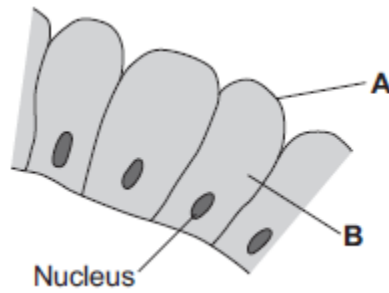
Tissue	Function
Epidermis	Allows diffusion of gases through the leaf
Phloem	Allows light through to the photosynthesising parts of the leaf
Spongy mesophyll	Allows water into the leaf
	Transport sugars around the plant
	Transports water around the plant

(3)

(Total 10 marks)

2.

The image below shows some cells in the lining of the stomach.



(a) (i) Use words from the box to name structures **A** and **B**.

cell membrane	chloroplast	cytoplasm	vacuole
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A _____

B _____

(2)

(ii) What is the function of the nucleus?

Tick (✓) **one** box.

To control the activities of the cell

To control movement of substances into and out of the cell

To release energy in respiration

(1)

(b) Draw **one** line from each part of the human body to its correct scientific name.

Part of human body

Scientific name

Layer of cells lining the stomach

An organ

Stomach

An organism

Mouth, stomach, intestines,
liver and pancreas

An organ system

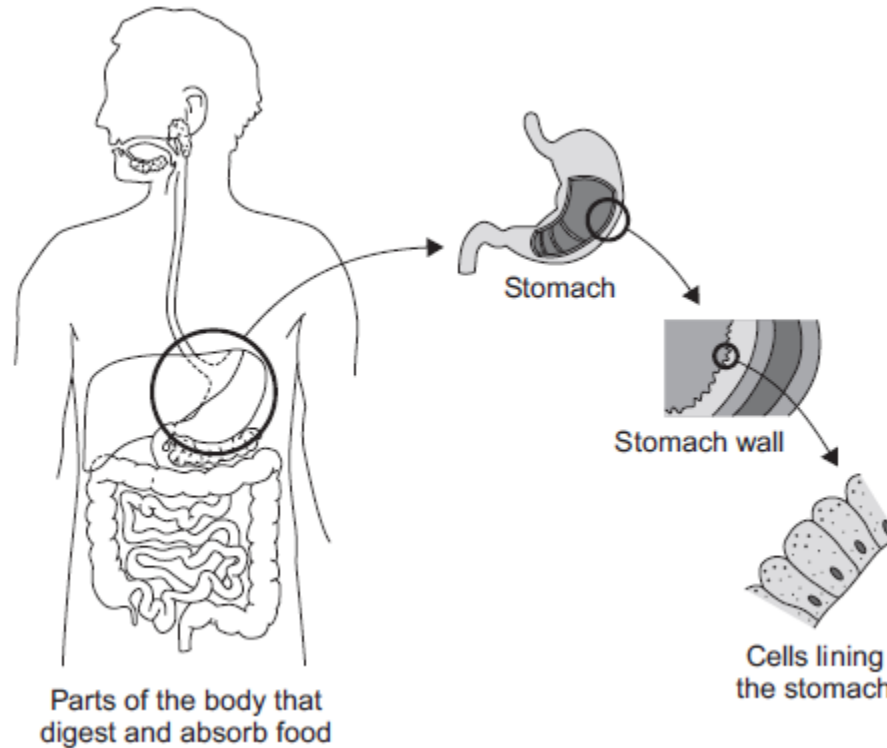
A tissue

(3)
(Total 6 marks)

3.

The diagram below shows the parts of the body that digest and absorb food.

It also shows some details about the structure of the stomach.



- (a) Complete the table to show whether each structure is an organ, an organ system or a tissue.

For each structure, tick (✓) **one** box.

Structure	Organ	Organ system	Tissue
Stomach			
Cells lining the stomach			
Mouth, oesophagus, stomach, liver, pancreas, small and large intestine			

(2)

- (b) (i) The blood going to the stomach has a high concentration of oxygen. The cells lining the stomach have a low concentration of oxygen.

Complete the following sentence.

Oxygen moves from the blood to the cells lining the stomach by

the process of _____.

(1)

(ii) What other substance must move from the blood to the cells lining the stomach so that respiration can take place?

Draw a ring around the correct answer.

glucose

protein

starch

(1)

(iii) In which part of a cell does aerobic respiration take place?

Draw a ring around the correct answer.

cell membrane

mitochondria

nucleus

(1)

(Total 5 marks)