



Subject: Grade 9 Natural Sciences
Topic: Natural Sciences: Term 2 - Exam 1
Total: 95 Marks

Name: _____

Date: _____

This image refers to question: 1



Question 1: Text Input

3 marks

All living organisms need energy to sustain life.

Where does this athlete get his energy from?

Type only **one word** as your answer.



Question 2: Multiple Choice

4 marks

The four main processes of the excretory system include ...

- A** filtration, absorption, diffusion and excretion
- B** filtration, absorption, digestion and excretion
- C** locomotion, filtration, digestion and excretion
- D** breathing, gaseous exchange, respiration and excretion

This image refers to question: 3

Periodic Table of the Elements

The periodic table displays elements from Hydrogen (1) to Oganesson (118). It includes the Lanthanide and Actinide series at the bottom. A legend at the bottom identifies element groups: Alkali Metal (red), Alkaline Earth (orange), Transition Metal (yellow), Basic Metal (green), Semimetal (light blue), Nonmetal (blue), Halogen (purple), Noble Gas (pink), Lanthanide (light purple), and Actinide (dark purple).

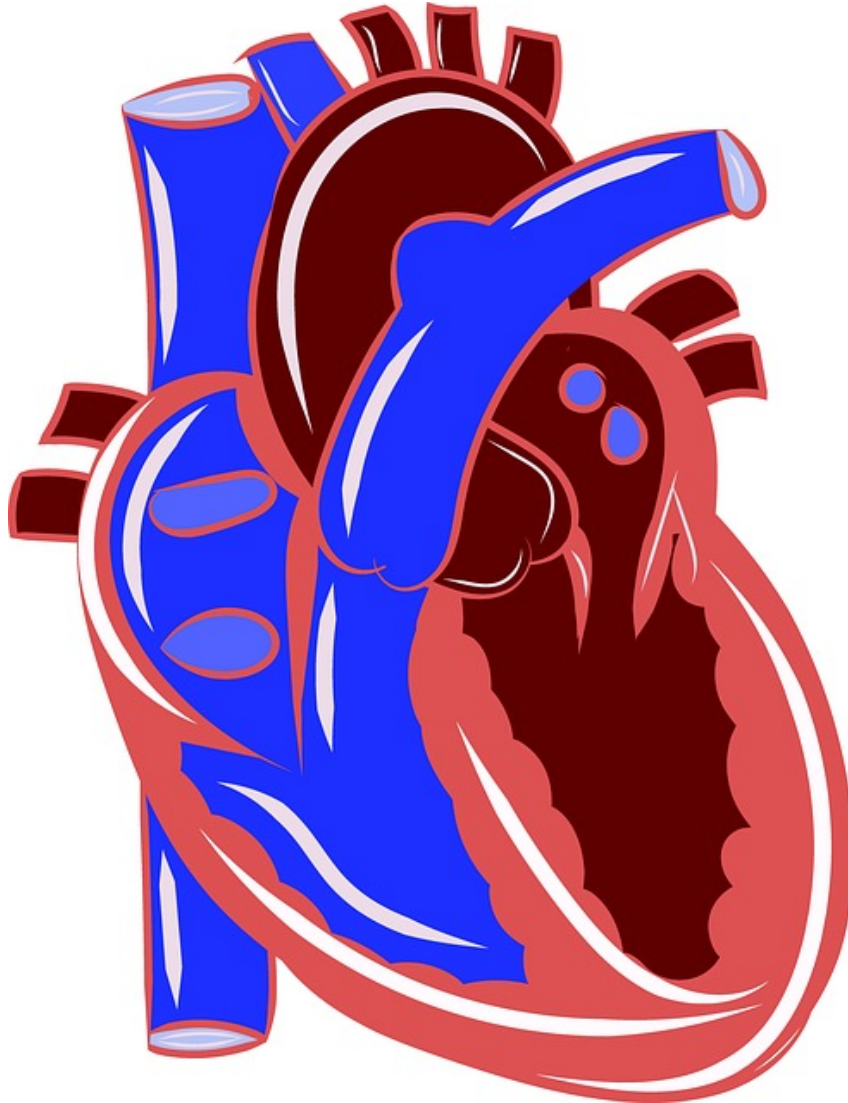
Question 3: Text Input

3 marks

Complete the following information about **phosphorus** on the periodic table:

Phosphorus: group 15, period ...

This image refers to question: 4



Question 4: Please Fill In The Blanks

4 marks

The Smith family suffers from diseases of the circulatory system. The dad's blood flow to a part of his heart muscle was blocked, so the muscle died due to lack of oxygen and nutrients. He suffered from (1) .

The doctor told his son to have his heart checked out in case it is hereditary. What they found was that the son's arteries are coated with a fatty substance, making the arteries very narrow. He now suffers from (2) .

Possible Answers: a stroke | a heart attack | high blood pressure | amnesia

1	
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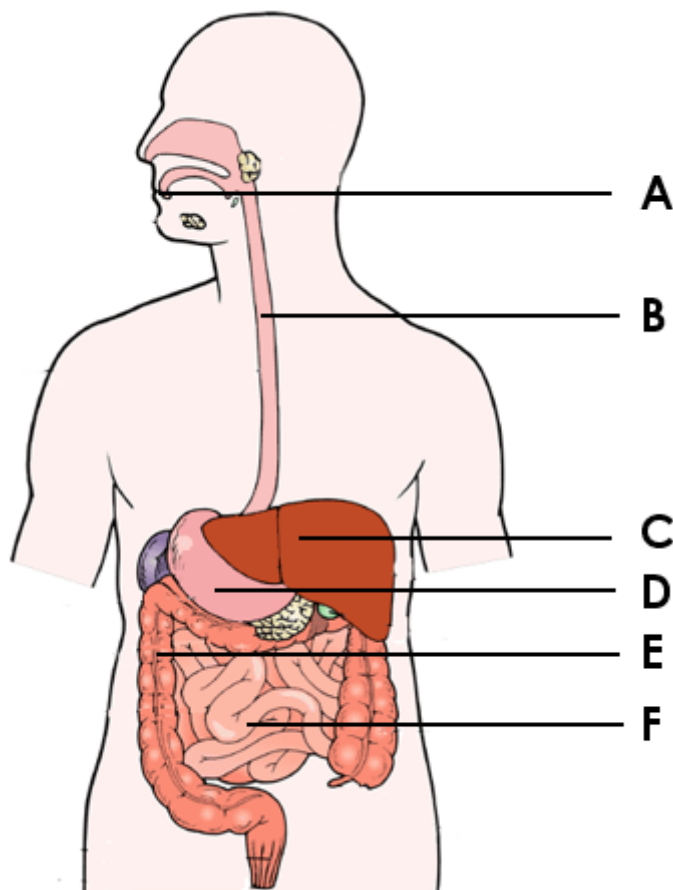
2	
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Question 5: Text Input

3 marks

Using ONE word only, describe the taste of an acid.

This image refers to question: 6

**Question 6: Multiple Choice**

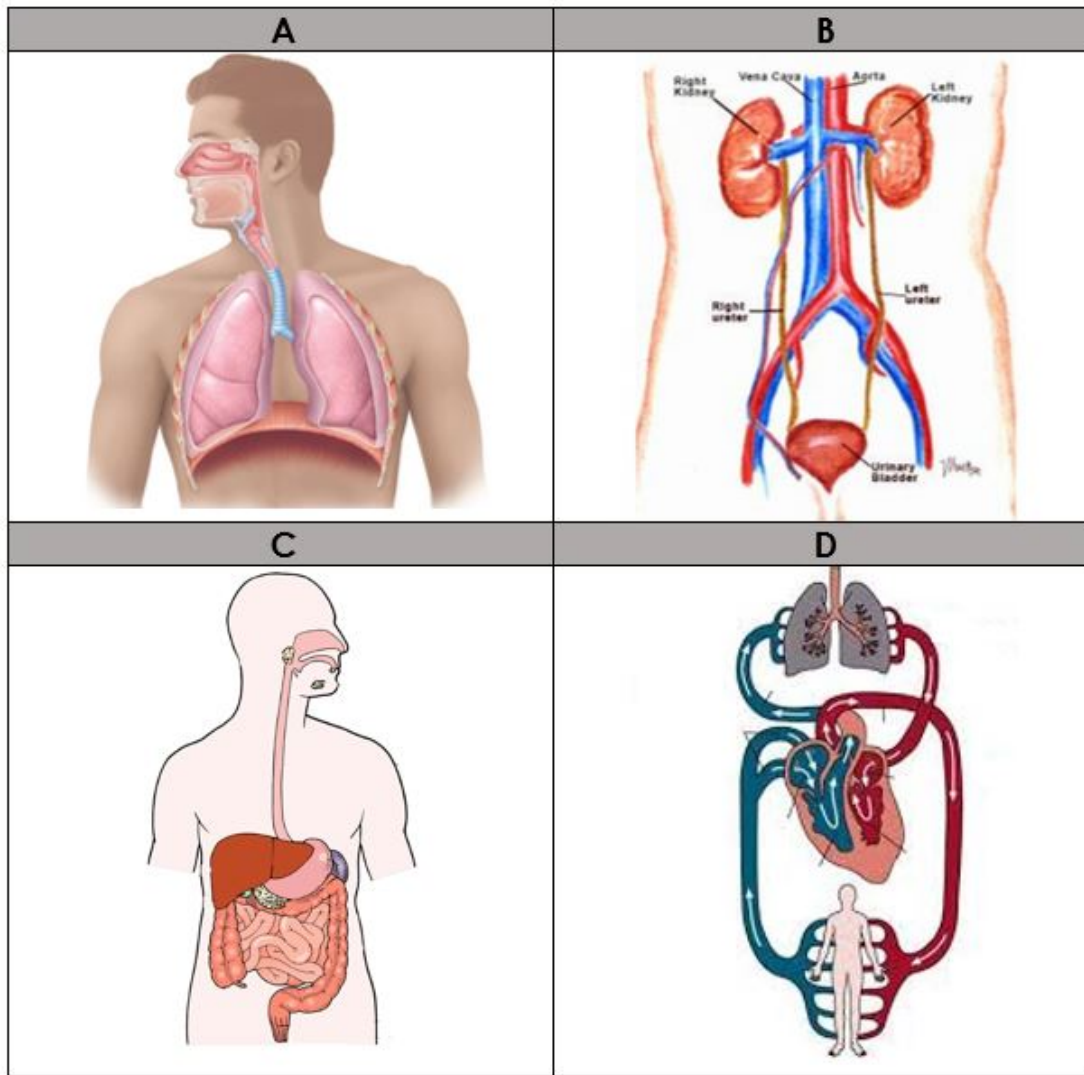
4 marks

Study the diagram carefully.

Where does absorption of nutrients take place?

- | | |
|----------|---------|
| A | B and C |
| B | C and E |
| C | D and F |
| D | D and E |

This image refers to question: 7



Question 7: Multiple Choice

4 marks

Study the diagrams carefully.

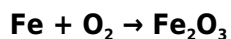
Which picture illustrates the respiratory system?

- | | |
|----------|---|
| A | A |
| B | B |
| C | C |
| D | D |

Question 8: Please Fill In The Blanks

6 marks

Balance the following reaction and complete the sentences with the correct answers.



(1) molecules of iron react with three molecules of oxygen to form (2) molecules of (3) .

Possible Answers: one | two | three | four | rust | magnetite

1	
3	

2	
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Question 9: Multiple Choice

4 marks

Which of the following are allotropes of sulphur?

A - orthorhombic

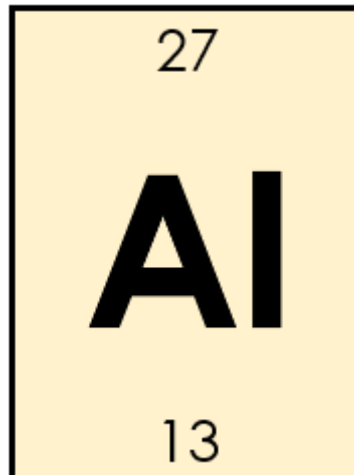
B - monoclinic

C - wood

D - glass

A	B and D
B	A and C
C	C and D
D	A and B

This image refers to question: 10, 11



Question 10: Please Fill In The Blanks

4 marks

Study the diagram carefully.

This element is found in Group (1) and another metal in this group is (2) .

Possible Answers: 11 | 12 | 13 | mercury | gallium

1	
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2	
----------	--

Question 11: True/False

2 marks

Study the picture carefully.

This product is commonly used in the household as foil.

TRUE

FALSE

This image refers to question: 12

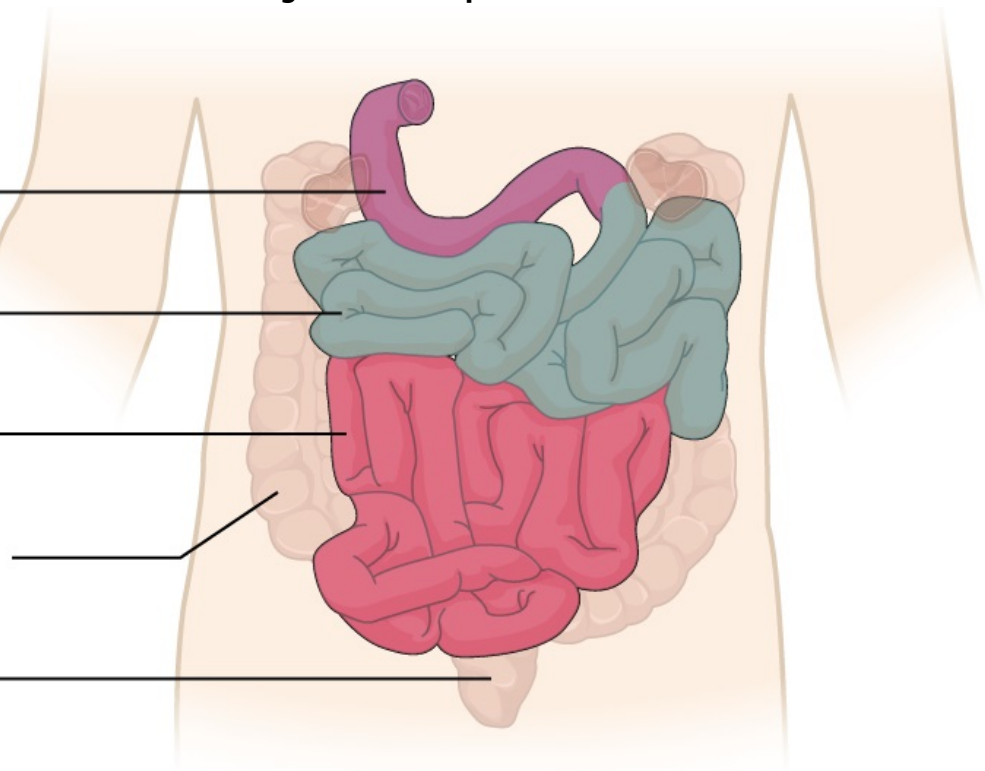
Small intestine
(A)

Small intestine
(B)

Small intestine
(C)

Large intestine

Rectum



Question 12: Text Input

3 marks

Give the **names** of the three parts that make up the small intestines, that have been labelled A, B and C in the picture.

Answer them in order separated by a comma, e.g. A - ... , B - ... , C - ...

Question 13: True/False

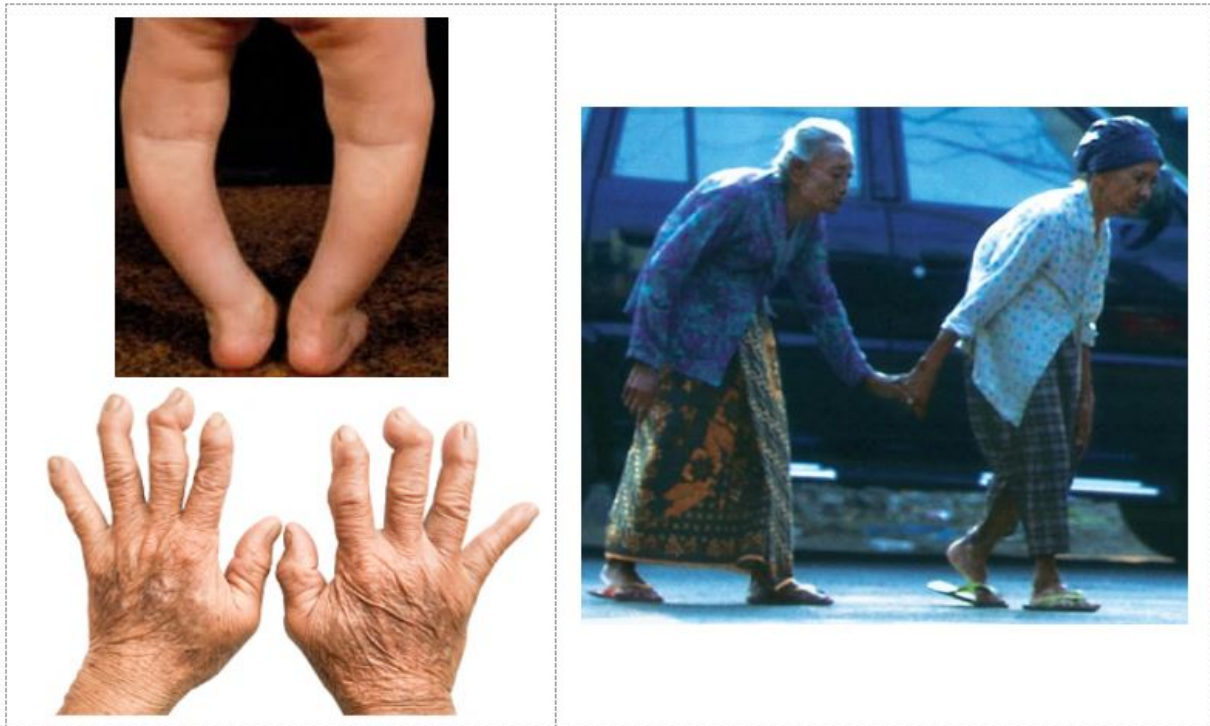
2 marks

All acids are dangerous.

TRUE

FALSE

This image refers to question: 14



Question 14: True/False

2 marks

These pictures show diseases relating to the circulatory system.

TRUE

FALSE

Question 15: Please Fill In The Blanks

4 marks

The first process of the digestive system takes place in the (1) and this process is called (2) .

Possible Answers: stomach | mouth | ingestion | egestion

1

2

Question 16: Text Input

3 marks

What is the name of the tube that goes from the mouth to the stomach?

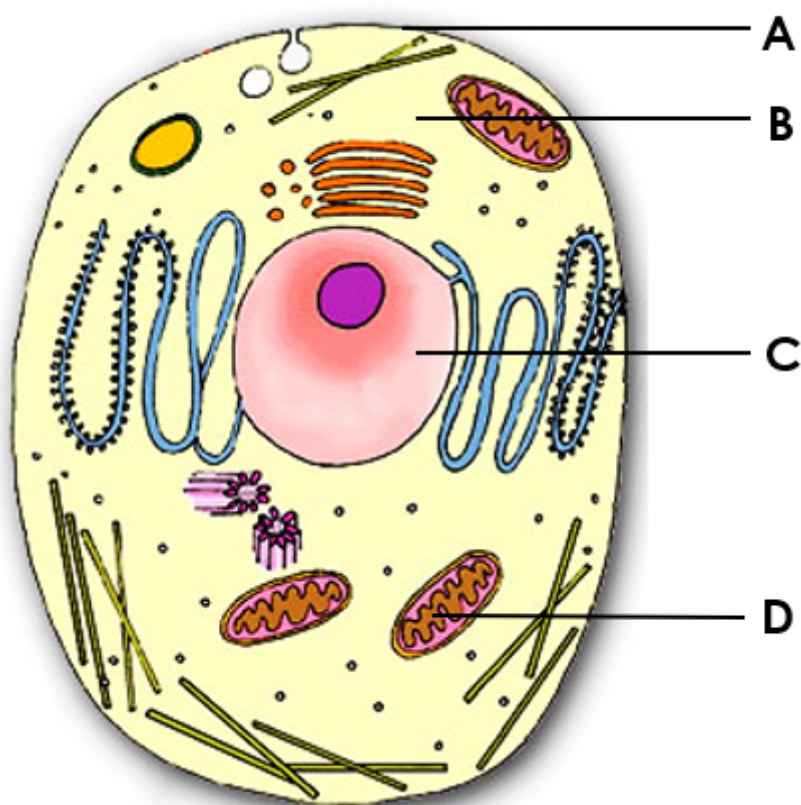
Question 17: Text Input

3 marks

What percentage of the atmosphere consists of oxygen?

Give the number only.

This image refers to question: 18, 19

**Question 18: Multiple Choice**

4 marks

Study the diagram of a general cell carefully, and identify which of the following labels are incorrect.

A - **cell wall**

B - **cytoplasm**

C - **nucleus**

D - **chloroplast**

- | | |
|----------|---------|
| A | A and B |
| B | A and D |
| C | B and C |
| D | C and D |

Question 19: Please Fill In The Blanks

4 marks

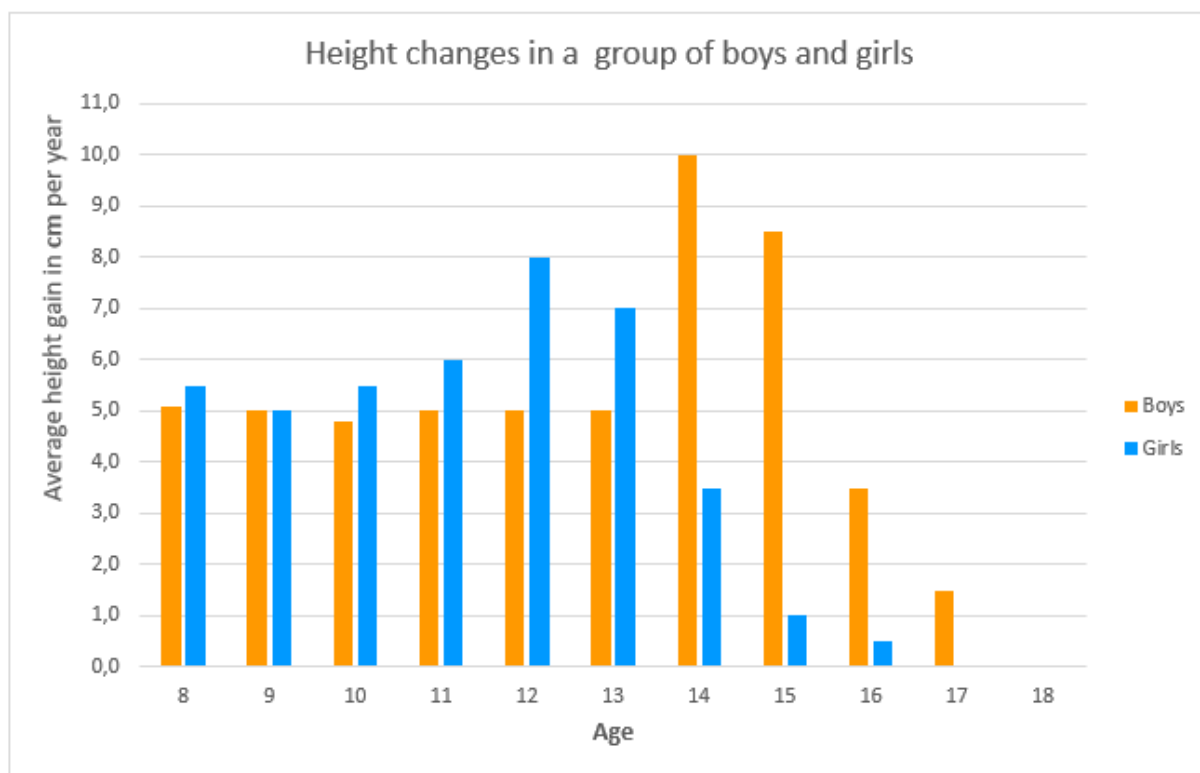
Study the diagram of a cell carefully.

(1) controls what enters or leaves the cell - it is called the (2) .

Possible Answers: A | B | C | D | nucleus | cell membrane

1	
----------	--

2	
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This image refers to question: 20, 21**Question 20: True/False**

2 marks

Study the graph carefully.

The average height gain *for boys* is constant between the ages of 11 and 13.

TRUE

FALSE

Question 21: Text Input

3 marks

Study the graph carefully.

At which age is the average height gain *the same* for both genders?

Type the **number only**.

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Question 22: Text Input

3 marks

The ... is the basic unit of all living organisms.

Complete the sentence with ONE word.

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Question 23: Multiple Choice

4 marks

What is the name given to Fe_3O_4 ?

- | | |
|----------|-----------|
| A | rust |
| B | iron |
| C | magnetite |
| D | magnet |

Question 24: Please Fill In The Blanks

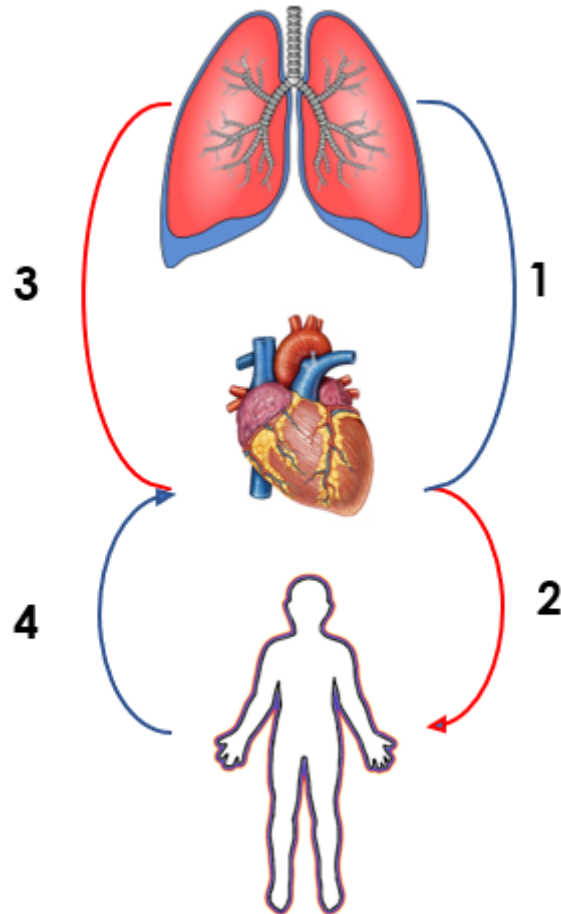
4 marks

(1) is usually a rapid reaction that produces (2) .

Possible Answers: Compound | Combustion | heat and smoke | heat and light

1		2	
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This image refers to question: 25



Question 25: True/False

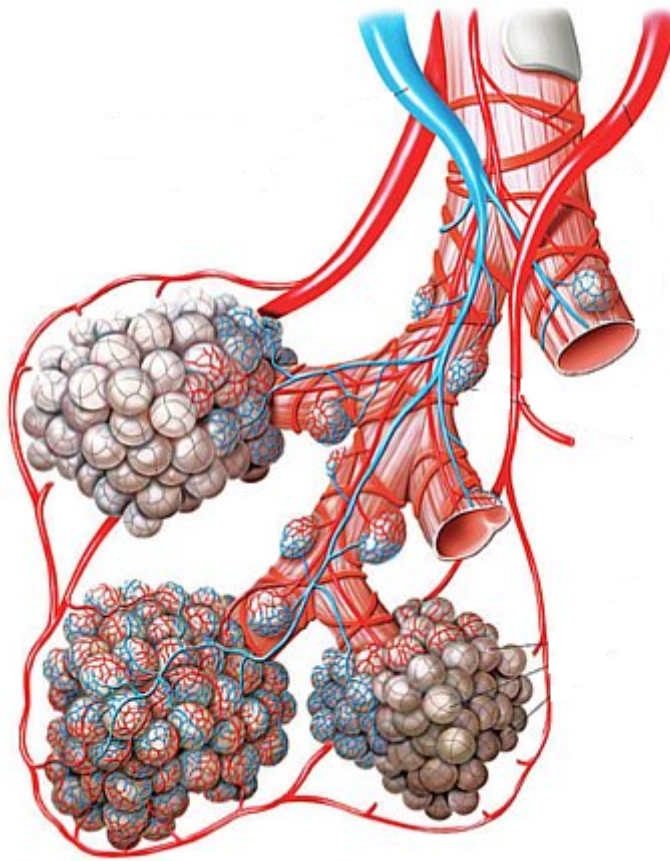
2 marks

The blood vessel labelled 1 is an artery transporting oxygenated blood to the heart.

TRUE

FALSE

This image refers to question: 26



Question 26: Text Input

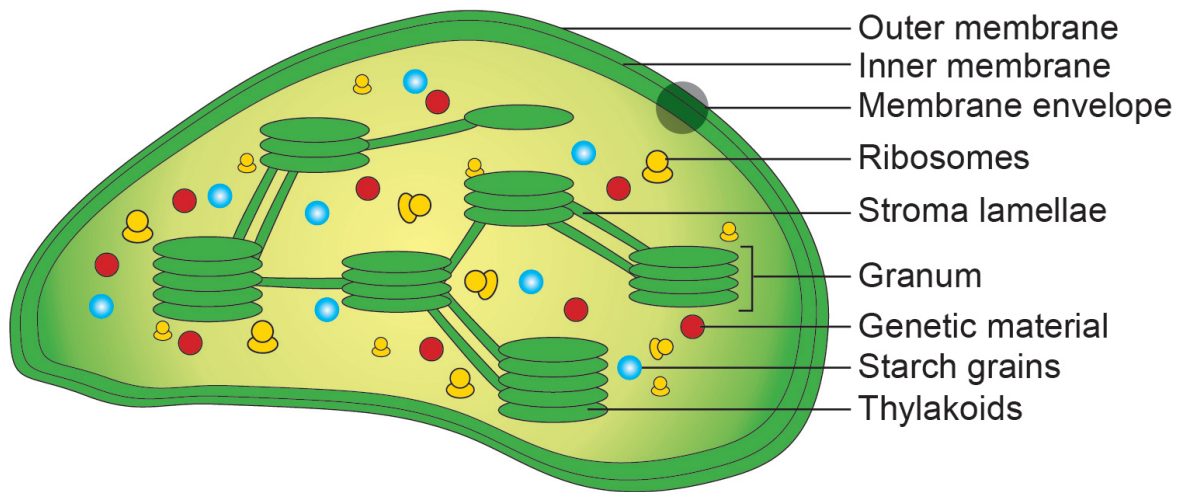
3 marks

Arteries branch into tiny blood vessels called ... that lie between the cells and are made up of a single layer of cells.

Answer using only one word.

This image refers to question: 27

STRUCTURE OF CHLOROPLAST



Question 27: True/False

2 marks

Chlorophyll contains chloroplasts.

TRUE

FALSE

Question 28: Text Input

3 marks

What term is given to the **whole passage along which food passes through** from the mouth to the anus during digestion?

Type only 2 words as your answer.

Question 29: Text Input

3 marks

Write a balanced equation for nitrogen oxide reacting with oxygen.

Use --> as your arrow.

Total: 95 Marks