

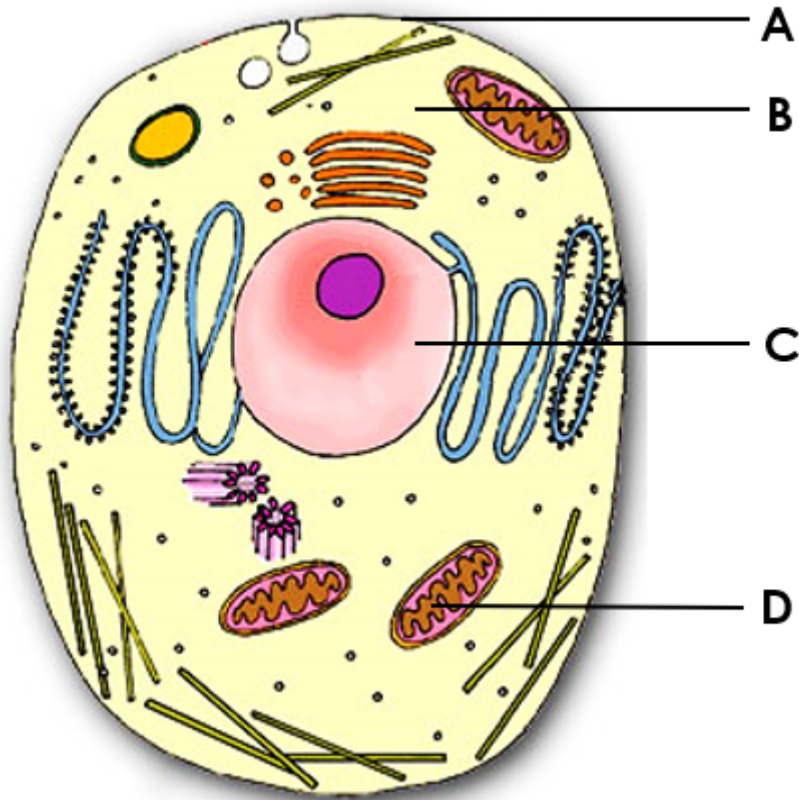


Subject: Grade 9 Natural Sciences
Topic: Natural Sciences: Exam Term 2
Total: 98 Marks

Name: _____

Date: _____

This image refers to question: 1, 2



Question 1: 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	
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2	
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Question 2: Multiple Choice

4 marks

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

A - ***cell wall***

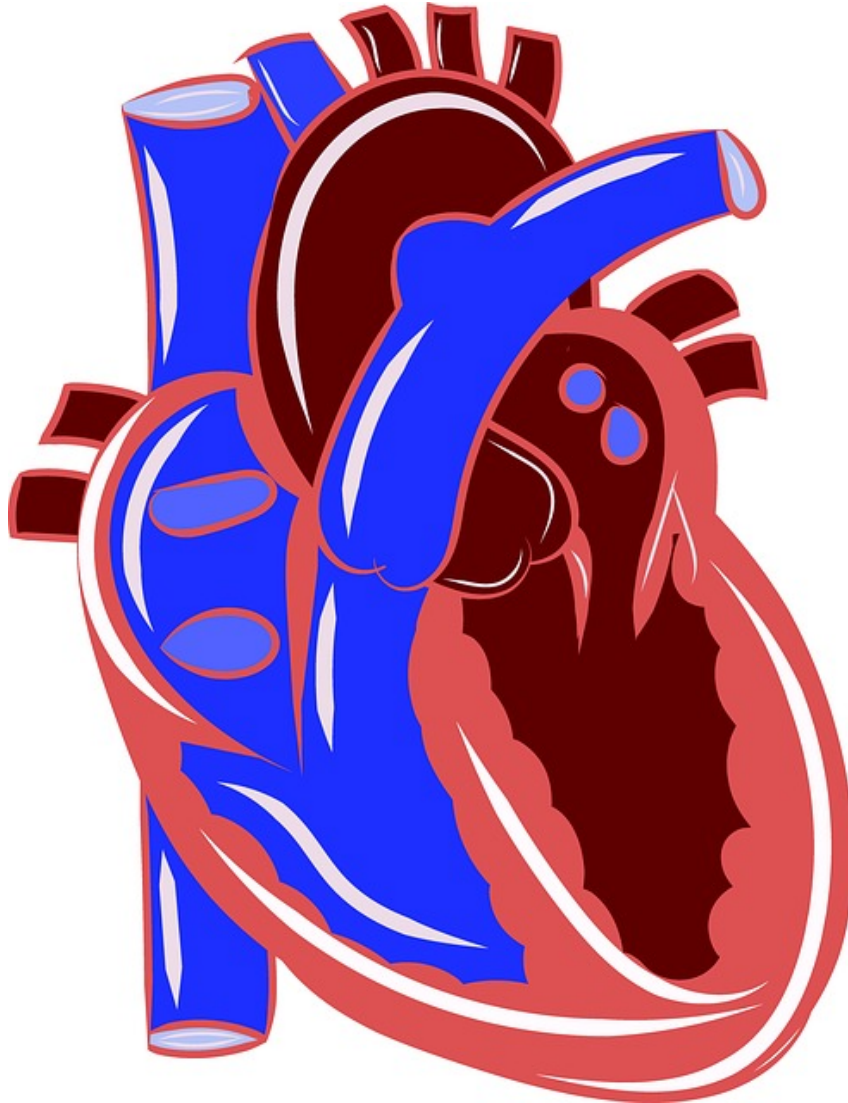
B - ***cytoplasm***

C - ***nucleus***

D - ***chloroplast***

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

This image refers to question: 3



Question 3: 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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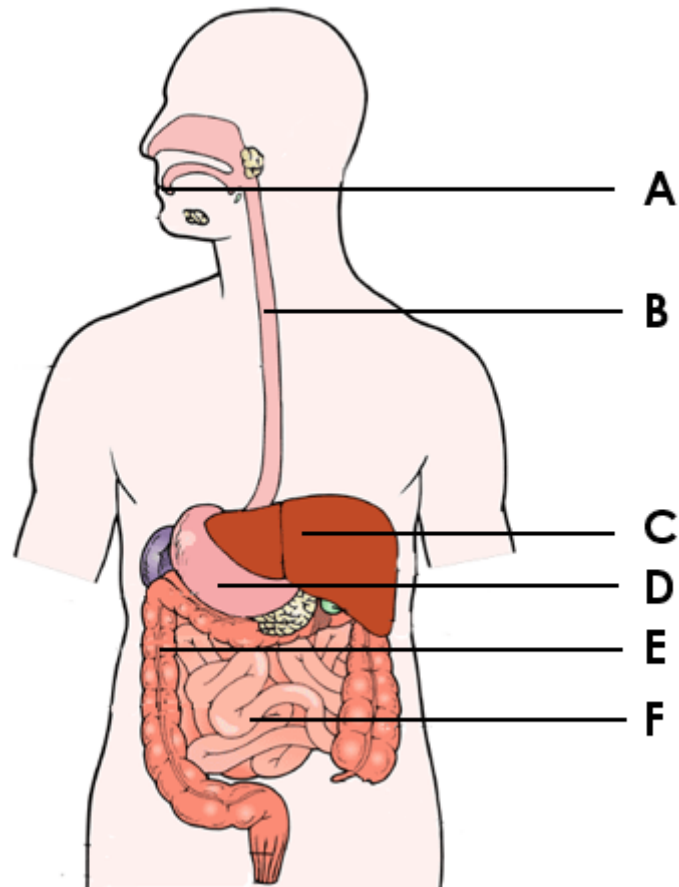
Question 4: Multiple Choice

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: 5



Question 5: 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 |

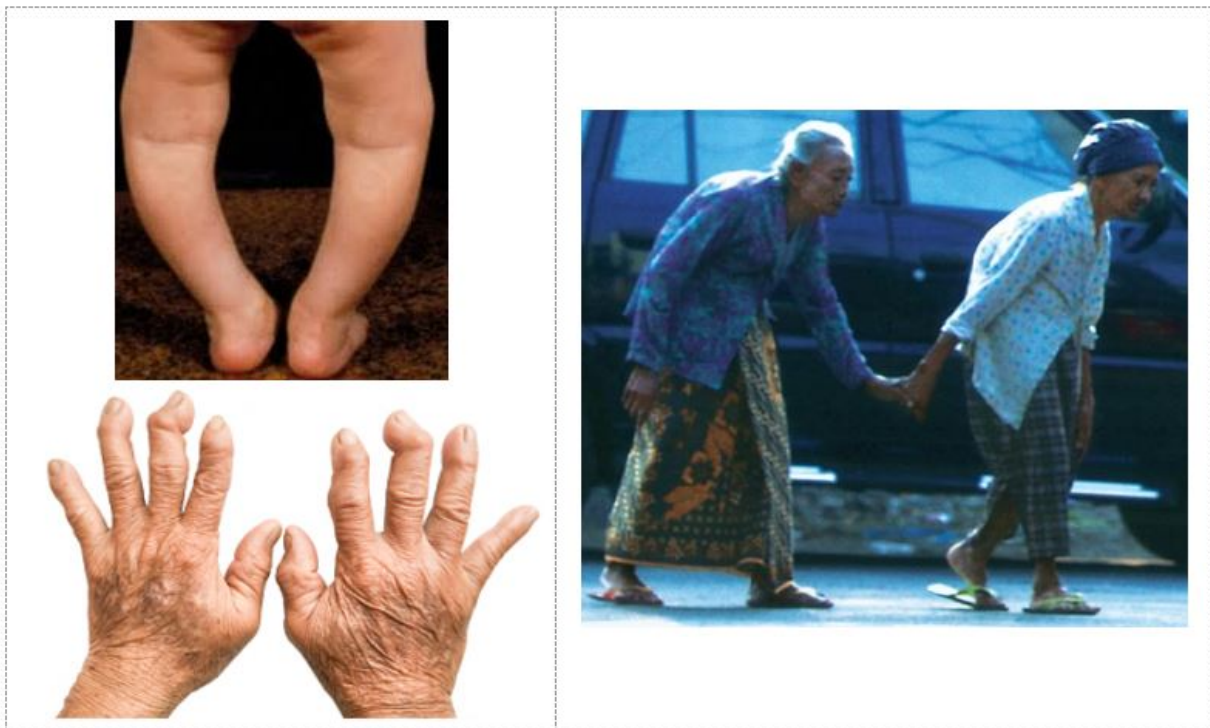
Question 6: Text Input

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.

This image refers to question: 7



Question 7: True/False

2 marks

These pictures show diseases relating to the circulatory system.

TRUE

FALSE

This image refers to question: 8

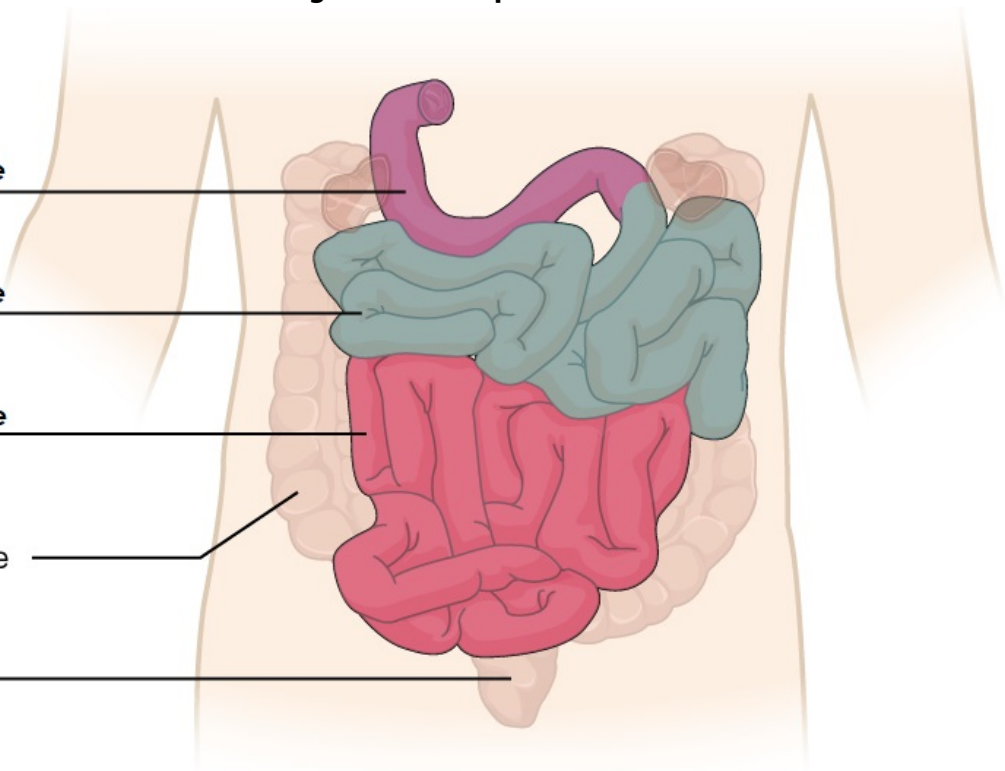
Small intestine
(A)

Small intestine
(B)

Small intestine
(C)

Large intestine

Rectum



Question 8: 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 9: Text Input

3 marks

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

Question 10: Text Input

3 marks

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

Complete the sentence with ONE word.

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Question 11: 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	
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2	
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This image refers to question: 12

Periodic Table of the Elements

1 H Hydrogen 1.008																	2 He Helium 4.003
3 Li Lithium 6.941	4 Be Beryllium 9.012											5 B Boron 10.811	6 C Carbon 12.011	7 N Nitrogen 14.007	8 O Oxygen 15.999	9 F Fluorine 18.998	10 Ne Neon 20.180
11 Na Sodium 22.990	12 Mg Magnesium 24.305											13 Al Aluminum 26.982	14 Si Silicon 28.086	15 P Phosphorus 30.974	16 S Sulfur 32.066	17 Cl Chlorine 35.453	18 Ar Argon 39.948
19 K Potassium 39.098	20 Ca Calcium 40.078	21 Sc Scandium 44.956	22 Ti Titanium 47.867	23 V Vanadium 50.942	24 Cr Chromium 51.996	25 Mn Manganese 54.938	26 Fe Iron 55.845	27 Co Cobalt 58.933	28 Ni Nickel 58.693	29 Cu Copper 63.546	30 Zn Zinc 65.38	31 Ga Gallium 69.732	32 Ge Germanium 72.631	33 As Arsenic 74.922	34 Se Selenium 78.971	35 Br Bromine 79.904	36 Kr Krypton 84.738
37 Rb Rubidium 84.468	38 Sr Strontium 87.62	39 Y Yttrium 88.906	40 Zr Zirconium 91.224	41 Nb Niobium 92.906	42 Mo Molybdenum 95.95	43 Tc Technetium 98.907	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.906	46 Pd Palladium 106.42	47 Ag Silver 107.868	48 Cd Cadmium 112.414	49 In Indium 114.818	50 Sn Tin 118.711	51 Sb Antimony 121.760	52 Te Tellurium 127.6	53 I Iodine 126.904	54 Xe Xenon 131.294
55 Cs Cesium 132.905	56 Ba Barium 137.328	57-71 Lanthanides	72 Hf Hafnium 178.49	73 Ta Tantalum 180.948	74 W Tungsten 183.84	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.227	78 Pt Platinum 195.085	79 Au Gold 196.967	80 Hg Mercury 200.592	81 Tl Thallium 204.383	82 Pb Lead 207.2	83 Bi Bismuth 208.980	84 Po Polonium [208.982]	85 At Astatine 209.987	86 Rn Radon 222.018
87 Fr Francium 223.020	88 Ra Radium 226.025	89-103 Actinides	104 Rf Rutherfordium [261]	105 Db Dubnium [262]	106 Sg Seaborgium [266]	107 Bh Bohrium [264]	108 Hs Hassium [269]	109 Mt Meitnerium [278]	110 Ds Darmstadtium [281]	111 Rg Roentgenium [280]	112 Cn Copernicium [285]	113 Nh Nihonium [286]	114 Fl Flerovium [289]	115 Mc Moscovium [289]	116 Lv Livermorium [293]	117 Ts Tennessine [294]	118 Og Oganesson [294]
57 La Lanthanum 138.905	58 Ce Cerium 140.116	59 Pr Praseodymium 140.908	60 Nd Neodymium 144.243	61 Pm Promethium 144.913	62 Sm Samarium 150.36	63 Eu Europium 151.964	64 Gd Gadolinium 157.25	65 Tb Terbium 158.925	66 Dy Dysprosium 162.500	67 Ho Holmium 164.930	68 Er Erbium 167.259	69 Tm Thulium 168.934	70 Yb Ytterbium 173.055	71 Lu Lutetium 174.967			
89 Ac Actinium 227.028	90 Th Thorium 232.038	91 Pa Protactinium 231.036	92 U Uranium 238.029	93 Np Neptunium 237.048	94 Pu Plutonium 244.064	95 Am Americium 243.061	96 Cm Curium 247.070	97 Bk Berkelium 247.070	98 Cf Californium 251.080	99 Es Einsteinium [254]	100 Fm Fermium 257.095	101 Md Mendelevium 258.1	102 No Nobelium 259.101	103 Lr Lawrencium [262]			

Alkali Metal

Alkaline Earth

Transition Metal

Basic Metal

Semimetal

Nonmetal

Halogen

Noble Gas

Lanthanide

Actinide

Question 12: Text Input

3 marks

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

Phosphorus: group 15, period ...

Question 13: 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	
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2	
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Question 14: Text Input

3 marks

List the main components of the digestive system in alphabetical order.

Separate the words by using a semi-colon (;).

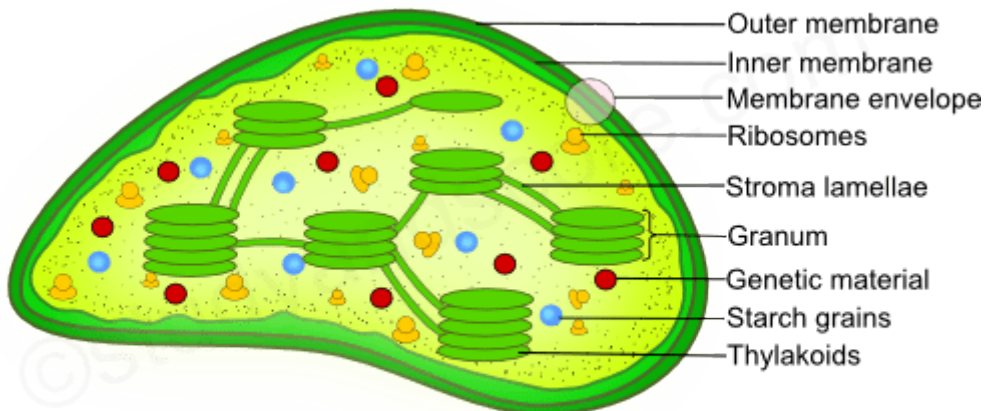
Question 15: Text Input

3 marks

Write a balanced equation for nitrogen oxide reacting with oxygen.

Use --> as your arrow.

This image refers to question: 16



STRUCTURE OF CHLOROPLAST

studyandscore.com

Question 16: True/False

2 marks

Chlorophyll contains chloroplasts.

TRUE

FALSE

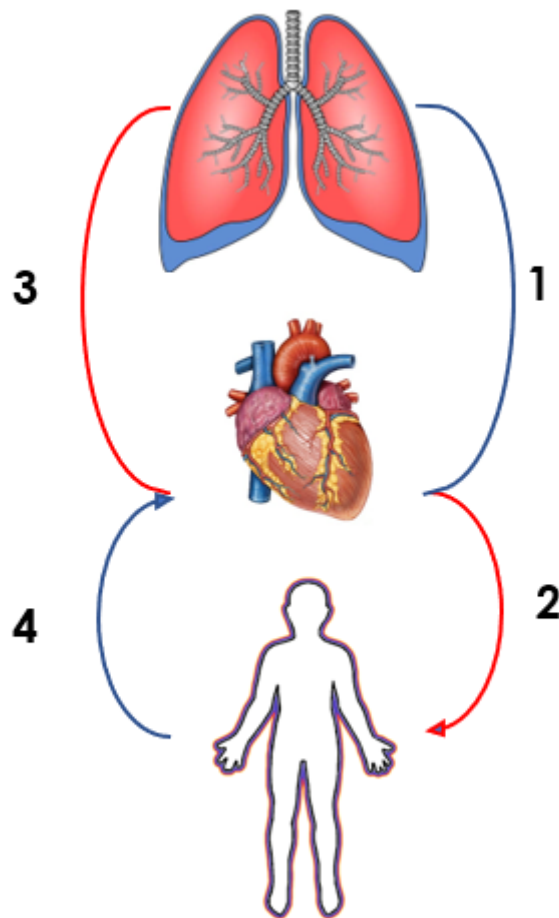
Question 17: Multiple Choice

4 marks

What is the name given to Fe_3O_4 ?

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

This image refers to question: 18



Question 18: True/False

2 marks

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

- | | |
|-------------|--------------|
| TRUE | FALSE |
|-------------|--------------|

Question 19: True/False

2 marks

All acids are dangerous.

 TRUE **FALSE****Question 20: Multiple Choice**

4 marks

Which of the following are allotropes of sulphur?

A - orthorhombic

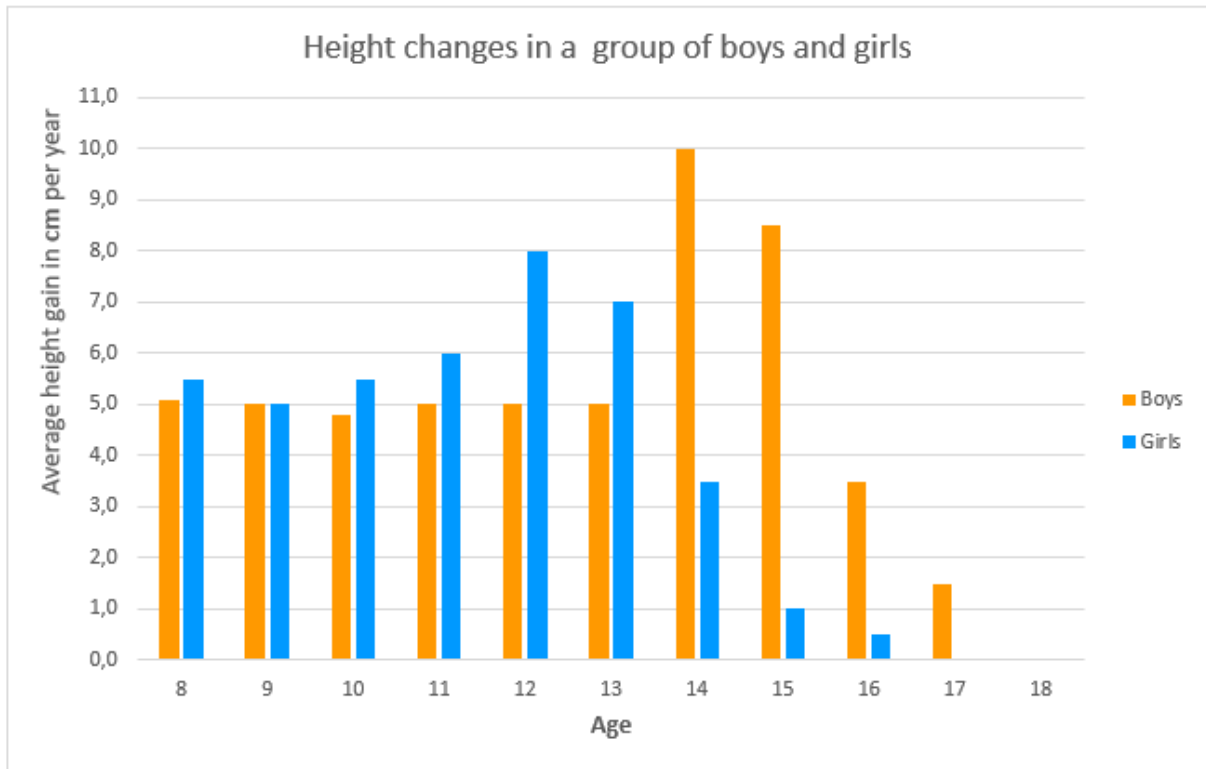
B - monoclinic

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: 21, 22



Question 21: 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 22: 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**.

Question 23: Text Input

3 marks

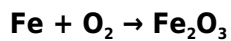
What percentage of the atmosphere consists of oxygen?

Give the number only.

Question 24: 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	<input type="text"/>
3	<input type="text"/>

2	<input type="text"/>
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Question 25: Text Input

3 marks

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

This image refers to question: 26



Question 26: Text Input

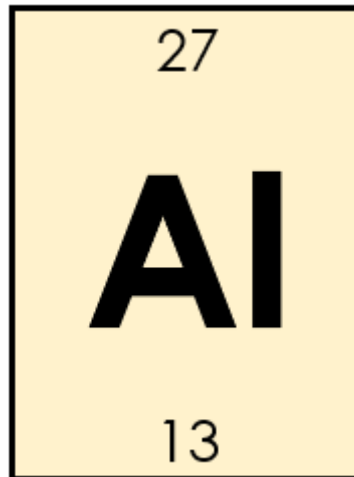
3 marks

All living organisms need energy to sustain life.

Where does this athlete get his energy from?

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

This image refers to question: 27, 28



Question 27: 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 | boron | gallium

1	
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2	
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Question 28: True/False

2 marks

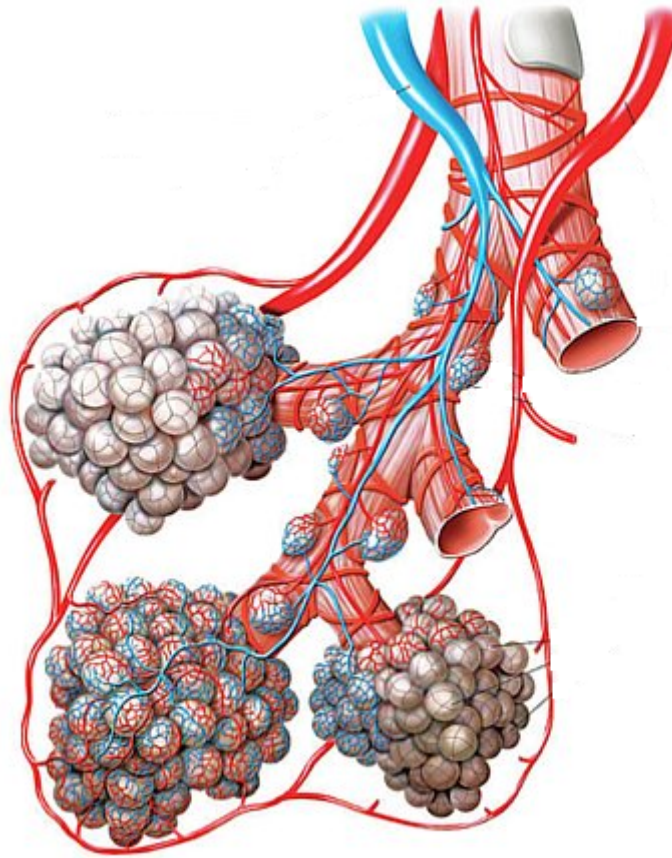
Study the picture carefully.

This product is commonly used in the household as foil.

TRUE

FALSE

This image refers to question: 29



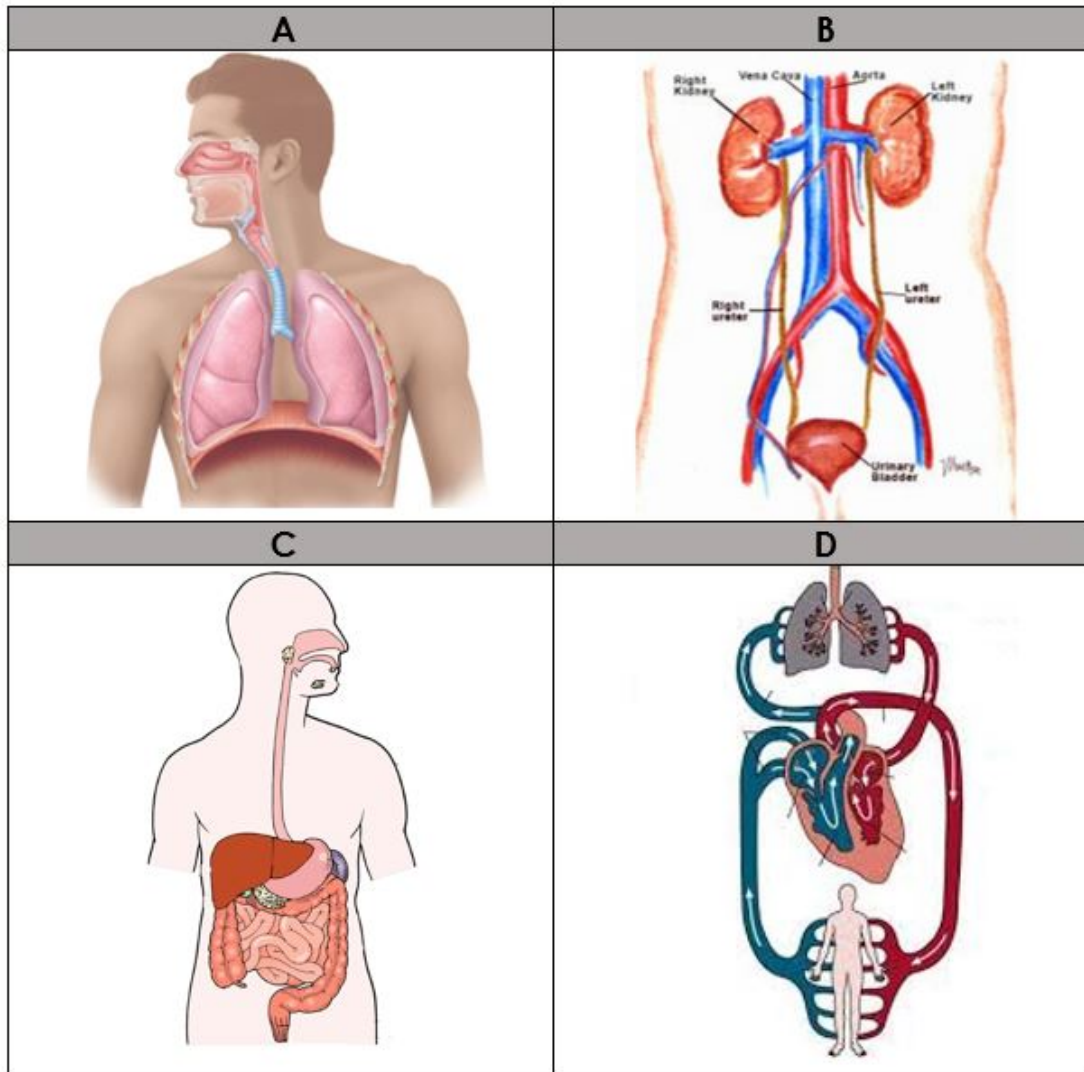
Question 29: Text Input

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: 30



Question 30: Multiple Choice

4 marks

Study the diagrams carefully.

Which picture illustrates the respiratory system?

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

Total: 98 Marks