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	KU	PS
Total Mark		

3700/401

NATIONAL
QUALIFICATIONS
2011

MONDAY, 23 MAY
9.00 AM – 10.00 AM

SCIENCE
STANDARD GRADE
Foundation Level

Fill in these boxes and read what is printed below.

Full name of centre	Town																											
Forename(s)	Surname																											
Date of birth	Scottish candidate number	Number of seat																										
<table><tr><td>Day</td><td>Month</td><td>Year</td></tr><tr><td> </td><td> </td><td> </td></tr></table>	Day	Month	Year				<table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>																					
Day	Month	Year																										

1 Answer as many questions as you can.

2 Read the whole of each question carefully before you answer it.

3 Write your answers in the spaces provided. Showing working may help in some questions.

4 Before leaving the examination room you must give this book to the Invigilator. If you do not, you may lose all the marks for this paper.



[illegible]

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| | | |
| water | nylon | oxygen |
| petrol | concrete | carbon dioxide |
| milk | wood | air |

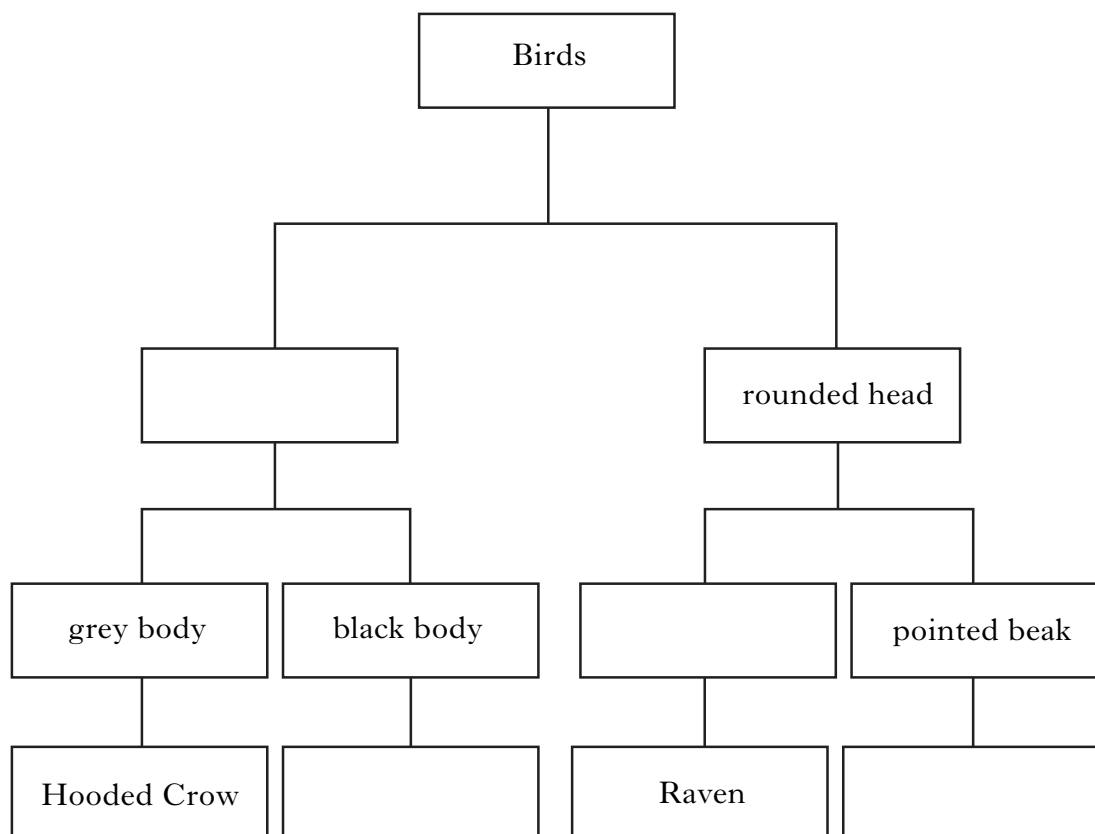
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Page three

Birds

The Raven has a curved beak and the Rook's beak is pointed.

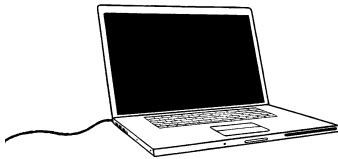
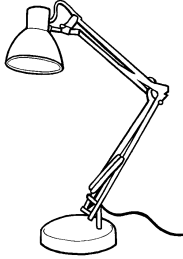
Use the information to complete the following key.



2

Marks

5. Some electrical appliances are shown in the grid below.

1  laptop	2  desk lamp
3  hair dryer	4  DVD player

Which electrical appliance is the **most expensive** to use for ten minutes?

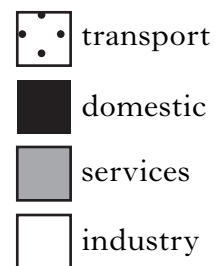
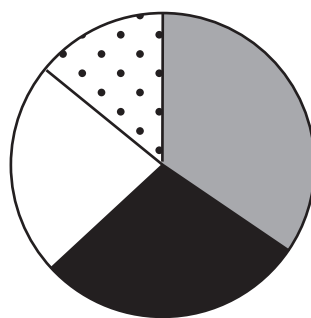
Box number

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6. The pie charts show the main use of energy in the UK in 1960 and 2000.

Energy use in 1960

Energy use in 2000



- (a) What was the largest use of energy in 2000?

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- (b) Which energy use **decreased** from 1960 to 2000?

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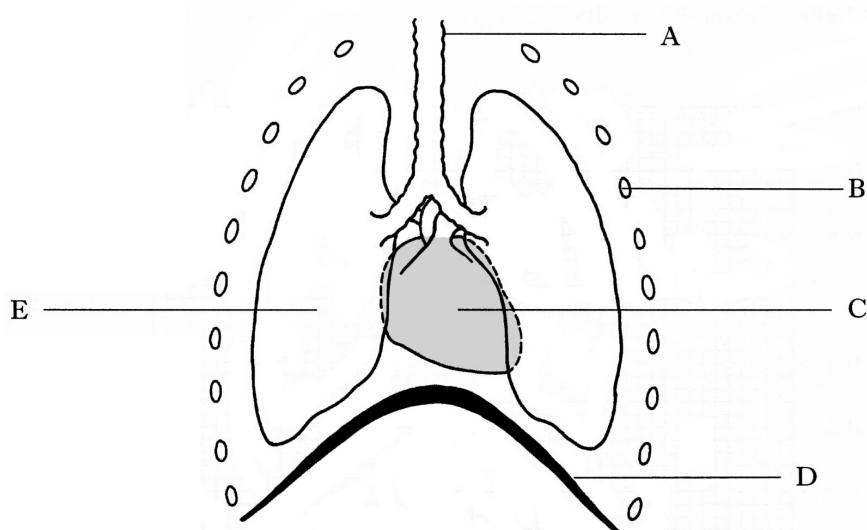
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(a) Which letter shows

(i) the windpipe?

Letter

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(ii) the heart?

Letter

1

(b) Which of the following statements describes the function of the heart?

- A Cleans the blood
- B Pumps blood around the body
- C Allows oxygen into the blood
- D Maintains the temperature of the blood

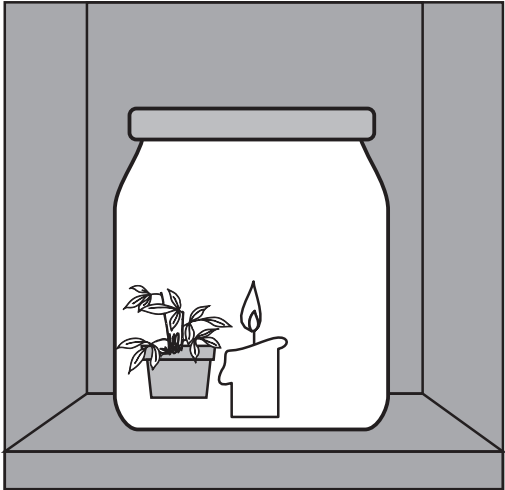
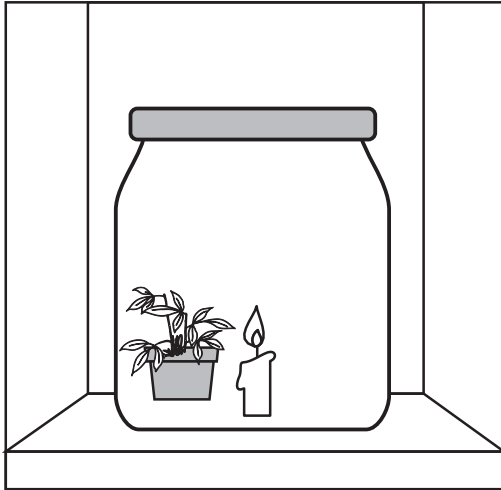
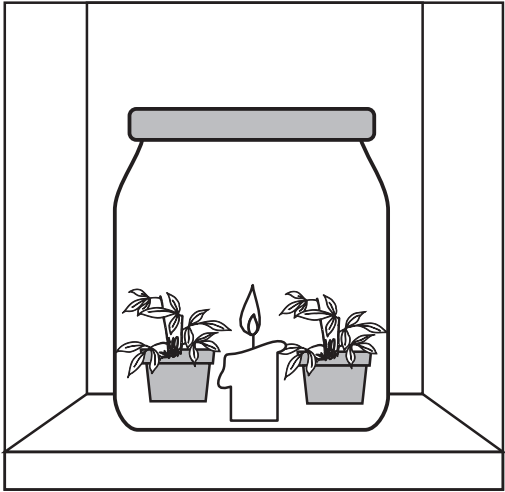
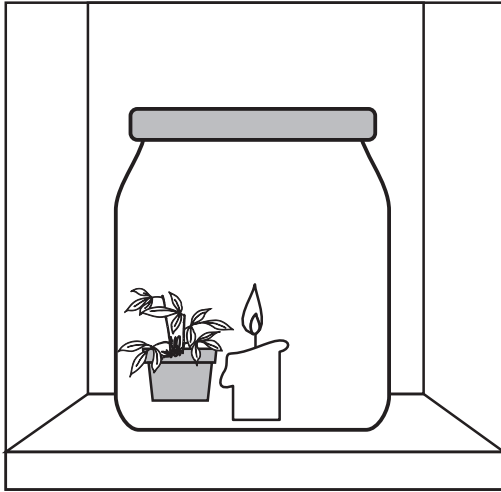
Underline the correct answer.

1

(c) One factor which can increase the risk of heart disease is smoking.
Give **one** other factor which can increase the risk of heart disease.

1

[Turn over

1	 Jar in dark cupboard	2	 Jar in sunlight
3	 Jar in sunlight	4	 Jar in sunlight

- 1**

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1	metal	2	pesticide
3	smoke	4	water

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Marks

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- Marks*

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- Marks*

Marks

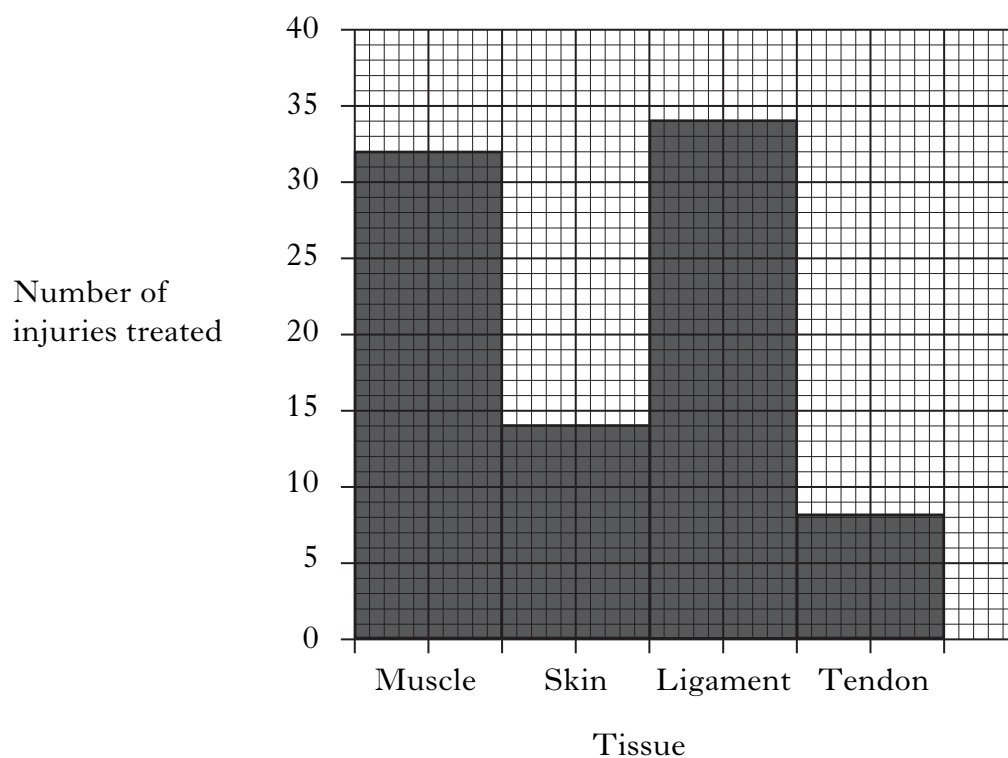
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- The results are shown below.



(a) What type of tissue was treated 34 times?

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(b) What is the total number of muscle and tendon injuries treated?

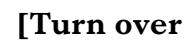
Space for working

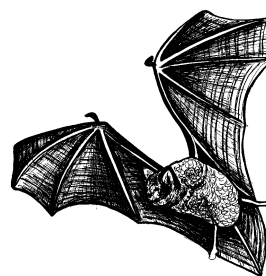
Answer

2

[Turn over

A stethoscope is used by a doctor to listen to a patient's heart and lungs. The stethoscope has **plastic ear pieces** which fit into the doctor's ears. It has a **small open bell** which is used to listen to the heart and a **large closed bell** which is used to listen to the lungs. The doctor can turn the bells to use the one that he needs. The **flexible rubber tubing** carries sounds from the bells to the doctor's ears.



[illegible]

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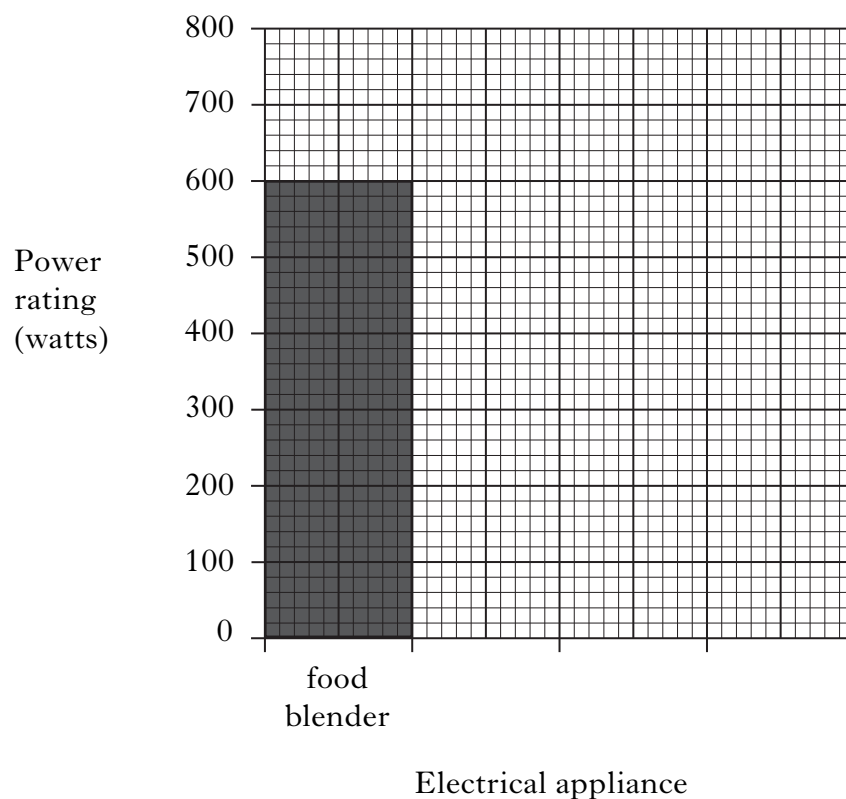
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[illegible]

- (a) Use this information to complete the table.

<i>Electrical appliance</i>	<i>Power rating (watts)</i>
food blender	
	100
ice cube maker	

- (Additional graph paper, if required, can be found on *Page twenty-one*)



[3700/401]

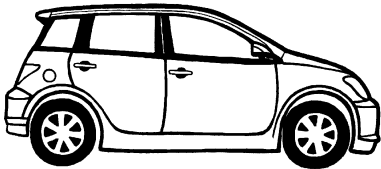
Marks

KU PS

20. Some methods of protecting materials are shown below.

water-proofing	painting	packaging
pesticide treatment	anodising	galvanising

Which **two** methods are used to protect the steel body of a car against corrosion?

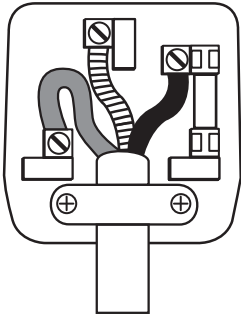


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21. Here is a diagram of an electric plug.



(a) The insulation on the three wires is colour coded.

Complete the table below.

<i>Colour of insulation</i>	<i>Name of wire</i>
green and yellow	earth
	live
blue	

2

(b) The earth wire is a safety device.

Name the other safety device in the plug.

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- A grey recycling bin with a lid and a recycling symbol on the front. The bin is shown from a slightly elevated perspective, showing its lid and the front panel. The lid has a circular opening in the center. The front panel features a white square with a black recycling symbol (a triangle of arrows) in the center.

- Space for working

Answer steel cans

1

- (b) Another bin contained 200 metal cans.
50% of the cans were made from aluminium.
How many aluminium cans were there?

Space for working

Answer aluminium cans

1

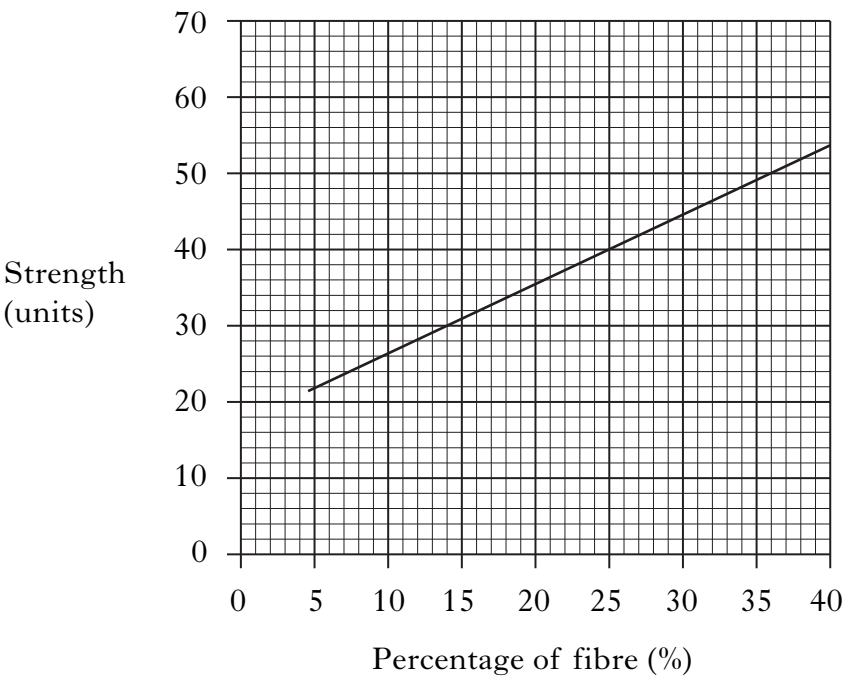
Page nineteen

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23. Plaster is mixed with fibre to make plasterboard.

The graph below shows how the percentage of fibre in plasterboard affects its strength.



(a) What conclusion can be drawn from these results?

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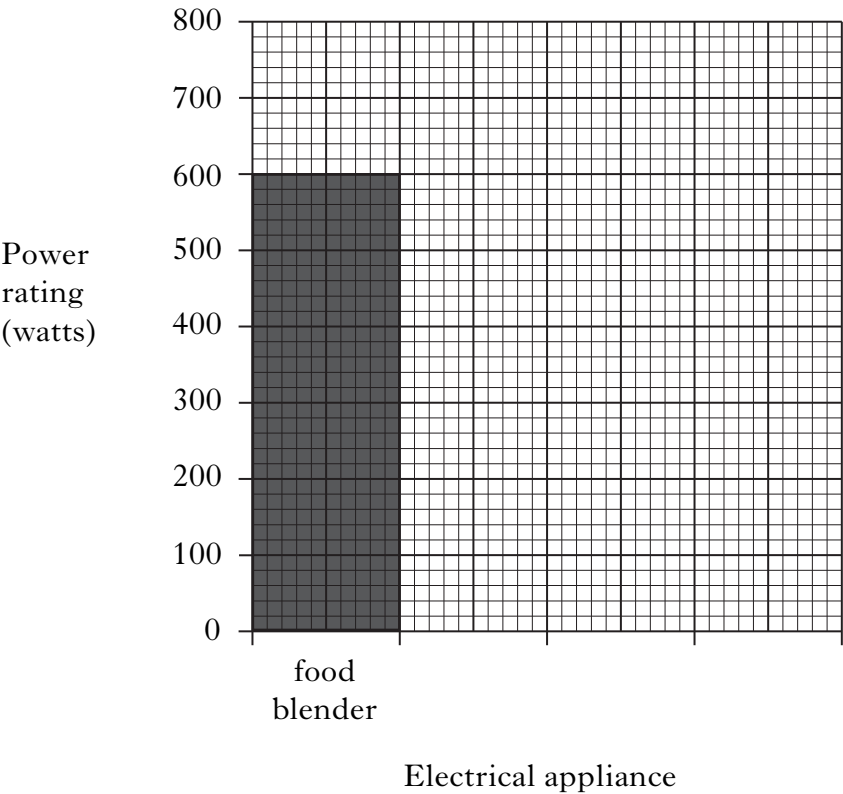
(b) What is the strength of plasterboard that contains 25% fibre?

..... units

1

[END OF QUESTION PAPER]

ADDITIONAL GRAPH PAPER FOR USE IN QUESTION 19(b)



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