

Please write clearly, in block capitals.

Centre number

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Candidate number

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Surname

Forename(s)

Candidate signature

ELC SCIENCE 5960

Externally-Set Assignment

Component 1 - Biology: The human body

Marks

Date of Exam

Time allowed: 45 minutes

Materials

For this paper you must have:

- a ruler

Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the bottom of this page.
- Answer **all** questions in the spaces provided.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- There are 20 marks available on this paper.
- The marks for questions are shown in brackets.

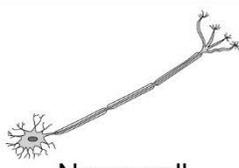
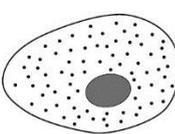
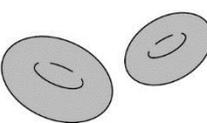
Answer **all** questions in the spaces provided.

1. Cells of the body are specialised to carry out particular functions.

The column on the left shows some types of cells.
The column on the right shows what these cells do.

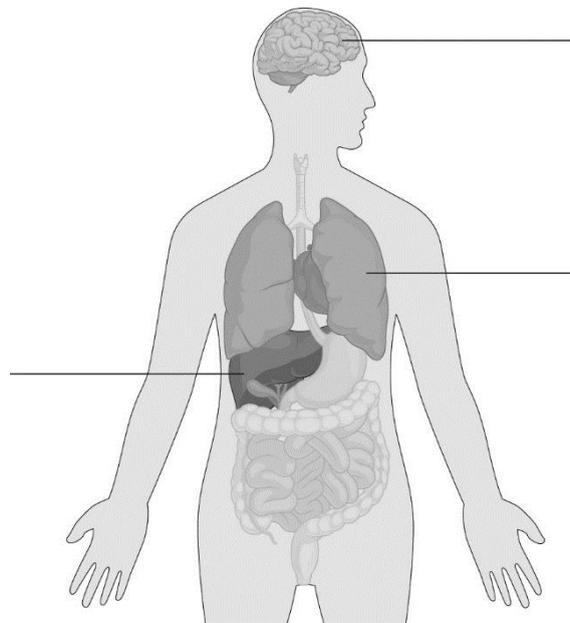
Draw **one** line from each type of cell to what the cell does.
We have done one to help you.

[3 marks]
Outcome 1

Type of cell	What the cell does
 <p>Nerve cell</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">carries oxygen</div>
 <p>Egg cell</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">carries nervous impulses around the body</div>
 <p>Sperm cell</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">joins with the male sex cell</div>
 <p>Red blood cell</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">reaches and joins with the female sex cell</div>

2. Use the correct answers from the box to label the organs of the human body.

brain heart liver lungs stomach



[3 marks]
Outcome 2

Turn over for the next question

3. Your body produces many different chemicals which affect the way the body works.

Use the correct answers from the box to complete each sentence.

[3 marks]
Outcomes 3, 9

blood	enzymes	glands	hormones	nerves
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Some chemicals help break down food into soluble substances.

These chemicals are called

Hormones are transported to their target organs by the

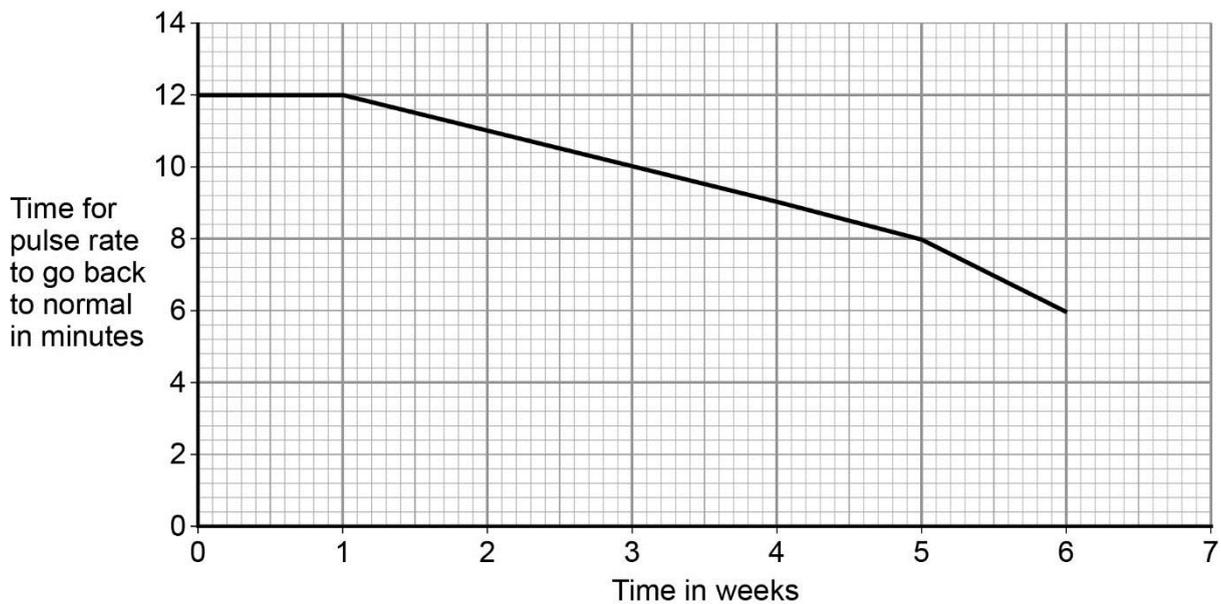
Hormones are secreted by

4. A student starts training for a run in 6 weeks' time.



She measures her pulse rate before running.
After running, she measures how long it takes her pulse rate to go back to normal.

She draws a graph to show how this time changes over 6 weeks.



- (a) How long did it take the student's pulse rate to go back to normal after five weeks of training?
..... minutes. [1 mark]

- (b) How can you tell from the graph that the student has become fitter?
.....
.....
.....

(c) The energy needed to run is released during respiration.

Which gas is used for respiration?

[1 mark]
Outcome 4

.....

5. George touches a hot pan by mistake. He immediately pulls his finger away.
This is an example of a reflex action.



- (a) Draw a ring around the word which describes a reflex action.

[1 mark]
Outcome 8

automatic

learned

slow

- (b) Which of these activities is a reflex action?

[1 mark]
Outcome 8

Tick (✓) **one** box.

writing a story

blinking when dust gets into your eye

kicking a football into a net

Turn over for the next question

6. Young children often become ill when they first start at playgroup. This is because they mix with a lot of people.



(a) Use the correct answer from the box to complete the sentence.

break die reproduce
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Bacteria can easily spread from one person to another.

[1 mark]
Outcome 5

When bacteria get into your body they quickly.....

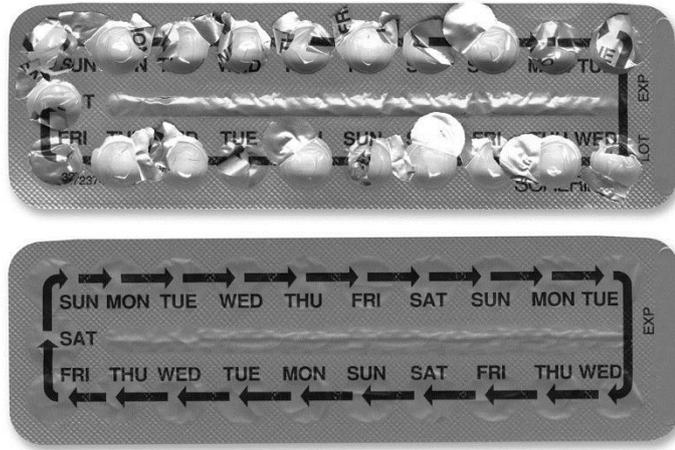
(b) Use the correct answer from the box to complete the sentence.

antibodies salts toxins
--

[1 mark]
Outcome 5

Then you become ill because bacteria make

7. Sarah decides to take contraceptive pills to stop her becoming pregnant.



Her friends told her that there were some advantages and disadvantages of taking “the pill”.

(a) Tick (✓) **one** box to show an advantage of using the contraceptive pill.

[1 mark]
Outcome 10

(b) Tick (✓) **one** box to show a possible disadvantage of using the contraceptive pill.

[1 mark]
Outcome 10

	Advantage	Disadvantage
The pill is 99% effective in preventing pregnancy.		
The pill will help you sleep better.		
You must take the pill every day for it to work.		
The pill will protect you against sexually transmitted diseases.		

Turn over for the next question

8. (a) Doctors often give their patients antibiotics to make them better.

What do antibiotics do?

[1 mark]
Outcome 7

Tick (✓) **one** box.

Antibiotics kill bacteria and viruses.

Antibiotics kill only bacteria.

Antibiotics kill only viruses.

- (b) Doctors may give patients a vaccine to prevent disease.

The vaccine stimulates body cells to produce antibodies against the disease.

Which type of cell produces antibodies?

[1 mark]
Outcome 6

Tick (✓) **one** box.

Bone marrow cells

Red blood cells

White blood cells

END OF QUESTIONS