

Answer **all** the questions

- 1 (a) Jasmine starts a new job living away from home.
She uses the internet to find a fitness club in her area.
Which of the statements about fitness clubs are correct?

Put ticks (✓) in the boxes next to the **three** correct answers.

- They stop you from smoking.
- They plan exercise programmes.
- They have a range of exercise equipment.
- They always make you healthier.
- They run exercise classes.

[2]

- (b) Jasmine visits the fitness club for the first time.
She is asked questions about her medical history and lifestyle.

- (i) Write down two things Jasmine should be asked about her **medical history**.

1

2

[2]

- (ii) Write down two things Jasmine should be asked about her **lifestyle history**.

1

2

[2]

[Total: 6]

2 (a) Femi is a blood donor.

(i) Her body will make more blood to replace the blood she gives.
Which of the following words are components found in the blood?

Put a ring around the components of Femi's blood.

- bone cell
- muscle cell
- platelet
- red blood cell
- starch
- urine
- white blood cell

[3]

(ii) Femi has 75cm^3 of blood for every kilogram of her body mass.
She has a body mass of 60 kilograms.
Calculate how much blood is in Femi's body.
Show your working.

answer = cm^3 of blood
[2]

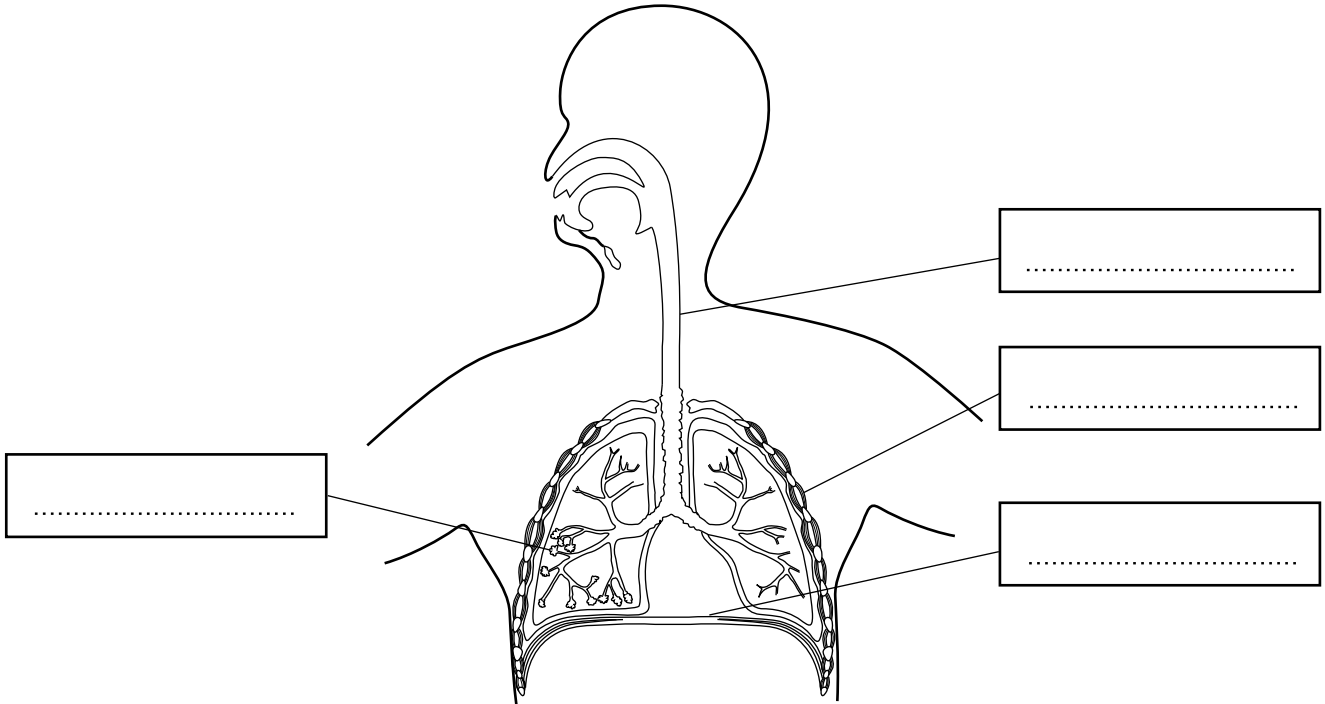
(b) Femi is also a bone marrow donor.
The bone marrow is taken from her hip bone, which is part of her skeleton.

Suggest **two** functions of Femi's skeleton.

- 1
 - 2
- [2]

[Total: 7]

- 3 Benji has cystic fibrosis. This means that his lungs fill up with a sticky mucus, which has to be removed daily. The diagram shows Benji's lungs.



- (a) Look at the diagram of the lungs.
Label the diagram using words from this list.

alveoli
 bronchus
 diaphragm
 intercostal muscles
 lung
 rib
 trachea

[4]

(b) (i) State **two** ways the structure of alveoli is related to their job.

.....
..... [2]

(ii) Suggest what effect the sticky mucus has in Benji's alveoli.

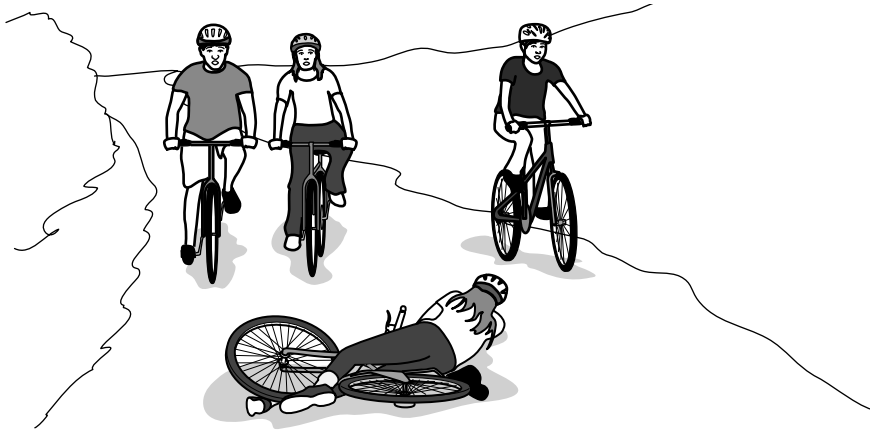
.....
..... [2]

(c) There is no cure for cystic fibrosis but Benji receives treatment to help relieve the symptoms. Give one **other** example of a condition which can only be treated and not cured.

..... [1]

[Total: 9]

- 4 Maureen is mountain biking with her friends. She falls off her bike and hits her head. She is unconscious.



An ambulance takes Maureen and one of her friends to hospital. At the hospital Maureen is treated immediately.

- (a) (i) Explain why the hospital staff treated Maureen before other patients.

.....
..... [2]

- (ii) Suggest why it was important that Maureen’s friend went to hospital with her.

.....
..... [2]

- (b) The doctor requires more detailed information about her condition so she is sent for a non-invasive imaging technique.

- (i) What is meant by a **non-invasive technique**?

..... [1]

- (ii) Name one type of non-invasive imaging technique Maureen might be given.

..... [1]

- (iii) Give two advantages of non-invasive imaging techniques.

1

2

[Total: 8]

5 Misha is in the army.
He injured his leg but is now recovering.
Misha needs to get fit so he can return to duty.

(a) Briefly describe an example of an exercise programme that could be used to improve his fitness.

.....
.....
..... [2]

(b) Suggest how Misha's progress could be monitored.

.....
.....
..... [2]

(c) Give **two** reasons for changing Misha's exercise programme before it has been completed.

1

2

..... [2]

[Total: 6]

END OF QUESTION PAPER

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