

TWENTY FIRST CENTURY
science

Module B2

KEEPING HEALTHY

Practice test

FOUNDATION

Name:.....

Form/teaching set:.....

Answer all of the questions.

Write your answers in the spaces provided on this paper.

1 Our bodies protect us from most of the microorganisms that can make us ill.

(a) Here are some methods of defence that the body uses.

- A The skin acts as a barrier to microorganisms.
- B White blood cells produce antibodies that kill microorganisms.
- C Chemicals in sweat kill microorganisms.
- D White blood cells engulf and digest microorganisms.

(i) Choose two methods of defence that **prevent microorganisms entering the body**.

Write down the letters of your choices.

..... and [2]

(ii) Choose two methods of defence which kill microorganisms that have entered the body.

Write down the letters of your choices.

..... and [2]

(b) If microorganisms enter the body, they can be very dangerous.

Which of these statements explain why they are dangerous?

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

The microorganisms are very small.

The microorganisms reproduce rapidly.

The microorganisms are attacked by white blood cells.

The microorganisms die.

The microorganisms produce toxins.

[2]

[Total marks: 6]

3 Many people die as a result of heart attacks.

(a) Here are six statements describing how a fatal heart attack takes place.

They are in the wrong order.

- A Some of the heart muscle is no longer supplied with blood.
- B Arteries supplying blood to the heart become blocked.
- C The heart stops beating.
- D Fatty deposits build up in the arteries that supply blood to the heart.
- E Cells in the heart muscle do not get oxygen and die.
- F Dead heart muscle is not able to contract.

Fill in the boxes to show the correct order.

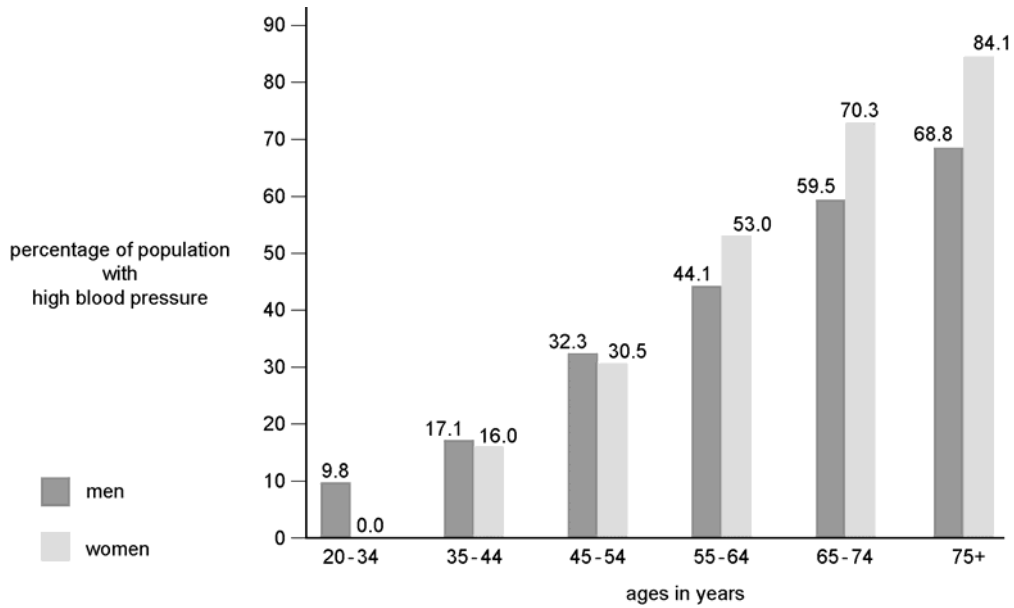
Two have been done for you.

D					C
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[3]

(b) People with high blood pressure are more likely to get heart disease.

This graph shows the percentage of people with high blood pressure at different ages.



Describe **two** conclusions about patterns in blood pressure that the graph shows.

1

.....

2

.....

[2]

[Total marks: 5]

4 Read this newspaper article about MMR vaccination.

Measles epidemic warning

Experts are warning that Britain faces a measles epidemic because parents are failing to have their children immunized after health scares about the vaccine MMR. Government scientists are renewing pleas to ensure that children are given the three-in-one measles, mumps, and rubella jab.

The MMR vaccine has been around for over ten years, but worries about side-effects have reduced the take up to a dangerously low level. Scares in the newspapers linked the vaccine to autism, bowel disorders, deafness, arthritis, and epilepsy.

The number of children being immunized fell to 80 per cent, but has recently risen slightly to 85%. At least 95 per cent of children must be protected to keep the disease from spreading into an epidemic.

The Department of Health is recommending that all parents go directly to their GPs and have their children vaccinated in order to prevent a measles outbreak.

A Government spokesman said ‘One small study published in 1995 suggested there was a link between the MMR jab and autism and bowel disorders, but further research shows that there is no evidence to prove this.’

Use information from this article to help you answer the questions.

- (a) The MMR vaccine gives protection against three childhood diseases.

Name these three diseases.

1

2

3

[1]

- (b) Some scares in the newspapers have linked the MMR vaccine to a number of side-effects.

Put a **ring** around two of the side-effects in this list.

autism epilepsy measles rubella strokes

[2]

- (c) What percentage of children must be immunized against measles to prevent the disease from spreading into an epidemic?

..... %

[1]

(d) Write down **two** reasons why scientists say it is important for parents to make sure their child is given the MMR jab.

1

.....

2

.....

[2]

[Total marks: 6]

[Total marks for test: 20]

TWENTY FIRST CENTURY
science

Module B2

KEEPING HEALTHY

Practice test

HIGHER

Name:.....

Form/teaching set:.....

Answer all of the questions.

Write your answers in the spaces provided on this paper.

1 Our bodies protect us from most of the microorganisms that can make us ill.

(a) The body can defend itself from attack by microorganisms in several ways.

A A barrier can prevent microorganisms from entering the body.

B Microorganisms can be killed before they enter the body.

C Microorganisms can be killed after they have entered the body.

For each of the descriptions below, choose which method of defence this part of the body gives by writing the letter **A**, **B** or **C** in the box.

The body is covered with a layer of skin.

White blood cells produce antibodies.

Eyes are bathed in fluid produced by tear ducts.

White blood cells engulf foreign material.

The skin produces sweat.

[3]

(b) If microorganisms enter the body, they can be very dangerous.

Which of these statements, taken together, explain why?

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

The microorganisms are very small.

The microorganisms reproduce rapidly.

The microorganisms are attacked by white blood cells.

The microorganisms die.

The microorganisms produce toxins.

[2]

[Total marks: 5]

2 Antibiotics can sometimes be used to treat people who have an illness.

(a) Illness can be caused by microorganisms.

Name two microorganisms that can be treated with an antibiotic.

..... [1]

(b) After a period of time, an antibiotic may no longer be effective in treating an illness caused by a microorganism.

(i) Write down the word used to describe the change in the microorganism that gives it this resistance to an antibiotic.

..... [1]

(ii) Precautions can be taken to make sure that an antibiotic continues to be effective in treating an illness.

Which of these statements describe these precautions?

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

Antibiotics should only be used when necessary.

More people should be given antibiotics to treat the illness.

The illness should not be treated with antibiotics.

The ill person should always take the whole course of antibiotic tablets.

The ill person should stop taking the antibiotic tablets as soon as they begin to feel better.

[2]

[Total marks: 4]

3 Many people die as a result of heart attacks.

(a) (i) State two lifestyle factors that contribute towards heart disease.

1

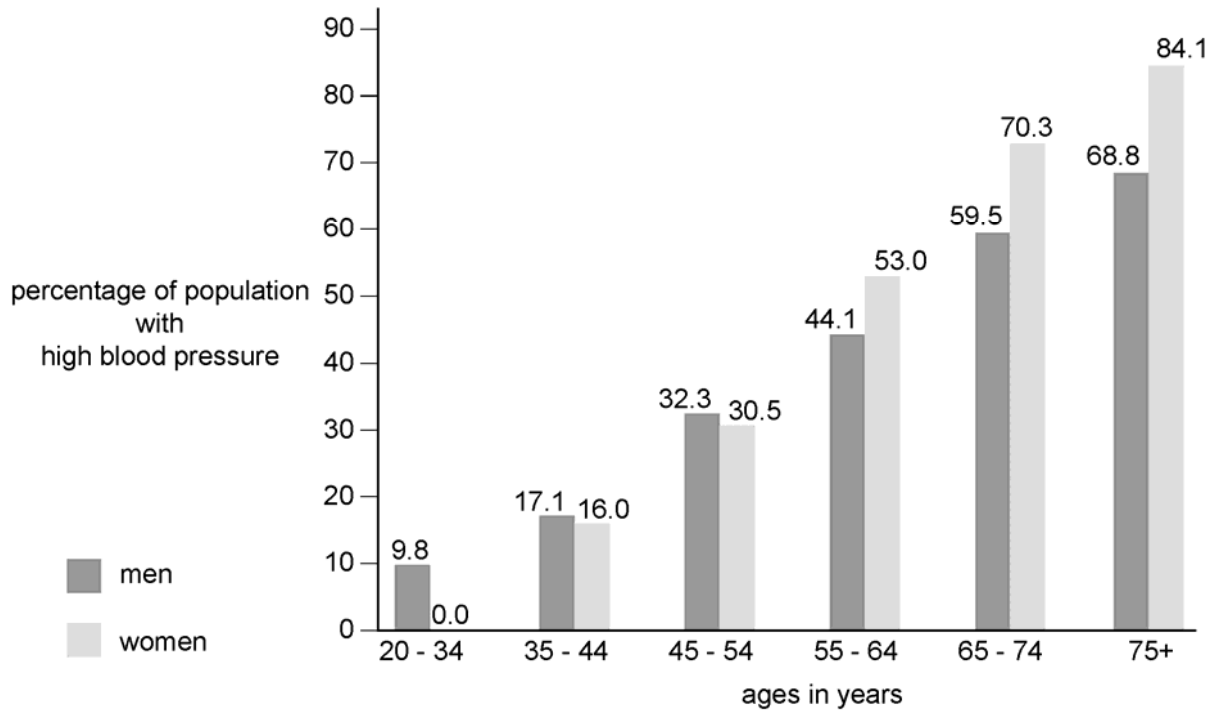
2 [2]

(ii) What other factor, not connected with lifestyle, can affect how likely a person is to have a heart attack?

..... [1]

(b) People with high blood pressure are more likely to get heart disease.

This graph shows the percentage of people with high blood pressure at different ages.



The graph shows that blood pressure increases with age.

Studies have also shown that heart attacks become more common with increasing age.

(b) Which of these statements are correct interpretations of these facts?

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

There is a correlation between high blood pressure and heart attacks.

There is a correlation between age and heart attacks.

High blood pressure is the cause of heart disease.

Age is the cause of heart disease.

High blood pressure has no effect on heart disease.

[2]

[Total marks: 5]

4 Read this newspaper article about MMR vaccination.

Measles epidemic warning

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The number of children being immunized fell to 80 per cent, but has recently risen slightly to 85%. At least 95 per cent of children must be protected to keep the disease from spreading into an epidemic.

The Department of Health is recommending that all parents go directly to their GPs and have their children vaccinated in order to prevent a measles outbreak.

A Government spokesman said 'One small study published in 1995 suggested there was a link between the MMR jab and autism and bowel disorders, but further research shows that there is no evidence to prove this.'

Use information from this article to help you answer the questions.

Write down **two** reasons why scientists say it is important for parents to make sure their child is given the MMR jab.

(a) 1

.....

2

.....

[2]

- (b) (i)** Some parents are campaigning for their children to receive separate vaccinations for measles, mumps, and rubella, rather than one combined MMR vaccination. They would like a period of several weeks between each vaccination.

Here are some statements about separate and combined vaccinations

Which statements describe reasons why these parents may wish to have separate vaccinations?

Put ticks (✓) in the boxes next to the best answers.

It would cost the Government more to give three separate vaccinations.

Giving three separate vaccinations would allow time for children to recover from any side-effects.

Giving separate vaccinations would result in a lower number of children receiving all three.

Parents could choose for their children to have one, two, or all three vaccinations.

Children could catch one of the diseases before they have been vaccinated for all three.

[2]

- (ii)** Most doctors believe that having separate vaccinations instead of one is not good for the children being vaccinated, or for the other children they meet.

Suggest and explain the reason for this.

.....

.....

.....

.....

[2]

[Total marks: 6]

[Total marks for test: 20]