

2001 HIGHER SCHOOL CERTIFICATE EXAMINATION

Biology

Section I – Part B (continued)

Marks

Question 25 (3 marks)

Antibiotics are drugs widely used in most industrialised societies. They are used to treat bacterial infections, are added to animal feed, and have been included in plastic products such as sandwich bags.

3

Explain TWO possible effects of this widespread use of antibiotics on the likely spread of disease in the future.

Antibiotics doesn't fully cure the bacterial, it just kill most of it. The bacteria that is left over can spread to another person. And too much antibiotics can cause or damage another disease.

Question 26 (3 marks)

When a body organ is transplanted from one person to another, the immune system of the recipient is triggered.

(a) Patients who have an organ transplant are given drugs to suppress their immune response. State the reason for this.

1

just so it <sup>doesn't</sup> shock the system, letting it slowly get use to the new organ.

(b) Explain a possible consequence for the general health of organ transplant patients as a result of suppressing the immune system.

2

The body might reject the system causing the body to malfunction and slows the immune system.

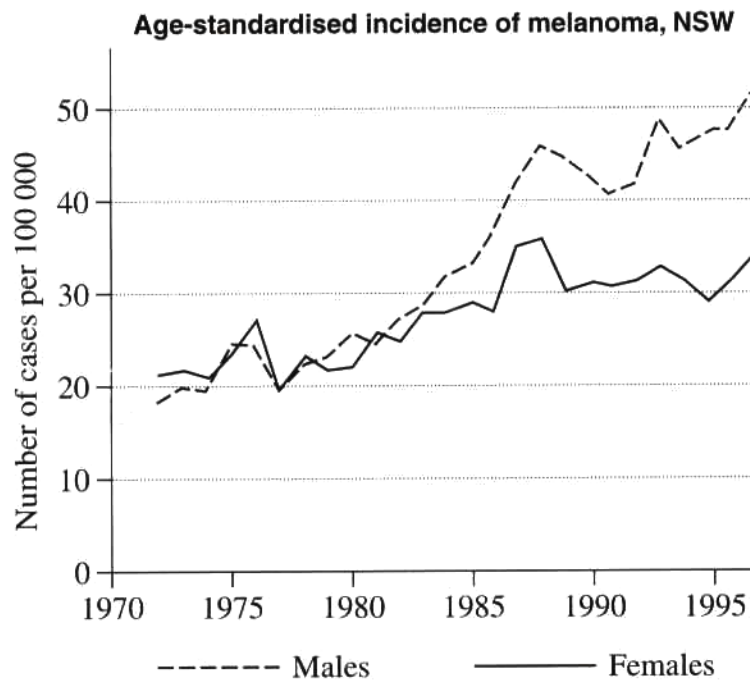
Marks

Question 27 (4 marks)

Epidemiological studies have demonstrated a relationship between ultraviolet radiation exposure and the development of melanoma, a type of skin cancer.

4

The graph shows the rate of occurrence of melanoma in males and females between 1972 and 1997.



A student studying the graph made the following statement.

‘The incidence of melanoma will continue to increase beyond 1997 at a greater rate in males than in females.’

Analyse the data in the graph to assess the validity of this statement.

In around 1981 more males were detected to have melanoma in NSW than women. More than 50 men in every 100 000 had melanoma in 1997

Marks

Question 28 (8 marks)

Evaluate the impact of major advances in scientific understanding and technology, in the field of genetics, on developments in reproductive technologies.

8

The impact of major advances in scientific understanding of technology in the field of genetics & the developments in reproductive technologies are huge. Scientists are now able genetically modify food and maybe soon clone humans. Females are now able to become pregnant without participating in sexual intercourse, because it is possible now to have sperm from a test tube and turn it into a pregnant woman. The impact of these major advances in science is great it makes life for people easier and better.