

2001 HIGHER SCHOOL CERTIFICATE EXAMINATION

Biology

Section I (continued)

Part B – 60 marks

Attempt Questions 16–28

Allow about 1 hour and 45 minutes for this part

Answer the questions in the spaces provided.

Marks

Question 16 (4 marks)

Genetically modified food on menu

Australians are growing more accepting of genetically modified (GM) food, a federal agency survey has found.

This survey found that 44 per cent of Australians now believe GM food would become more widely accepted and less risky in the next few years.

An earlier survey revealed that people thought the risks outweighed the benefits, but that the situation would change.

- (a) State ONE opinion held by Australians about genetically modified food, according to this article. 1

44% of Australians now believe GM food would become more widely accepted and less risky in the next few years.

- (b) Justify ONE piece of information you would need in order to determine the validity of the survey results. 3

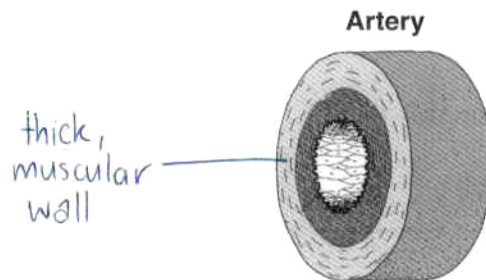
One piece of information needed to determine the validity of the results is the number of people surveyed. The more people surveyed the more accurate the data would be in depicting the views of majority of Australians on GM foods, as it would get information from a larger cross section of the community.

Marks

Question 17 (3 marks)

- (a) Label, on the diagram, ONE structural feature of the artery shown.

1



- (b) How does the labelled feature relate to the artery's function?

2

The thick muscular wall is required so that the artery can carry blood away from the heart under high pressure. The blood is being pumped & the muscular aspect of the artery ~~is~~ ensures that this process is carried out.

Question 18 (5 marks)

- (a) Name TWO products extracted from donated blood, and state their uses.

4

Red blood cells: given to people who are anaemic or ~~have~~ have disorders where they do not produce enough RBC

Plasma: contains clotting factor VIII given to patients who are haemophiliacs and are bleeding due to ^{an} accident.

- (b) Propose ONE reason why scientists have now begun to develop artificial blood.

1

There is not enough blood donors to cater for the number of people requiring blood transfusions. Some countries do not even have blood donor facilities.