

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

Genetically modified foods ~~would~~^{will} 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

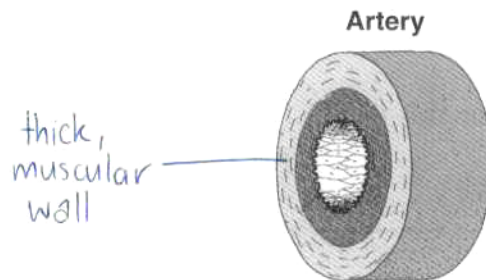
The types of Australians being interviewed would need to be acknowledged. If they are ~~to~~ people involved in the field of genetics they are more likely to support GM foods. The results would be more valid if a random sample of people had been selected from the Australian population.

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

Plasma is used to replace large amounts of lost fluids while waiting for a matched blood, i.e. after severe burns.
Platelets are isolated and used to assist people who do not have enough blood clotting agent.

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

1

Red blood cells need to be type matched before they are given to a person. Suitable donors can be hard to find in time.