

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**

Australians held the opinion that the presence of GM foods would be <sup>more</sup> accepted by people.

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

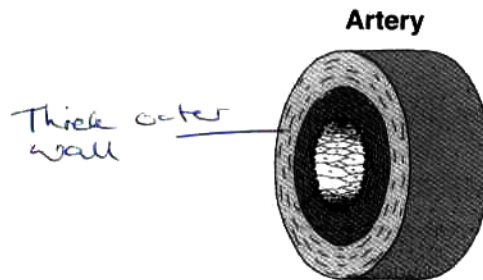
One piece of information would be the number of people actually surveyed and also their ages ~~and ages~~. This would indicate if a large sample of people that represented the majority of Australians was used in the survey representing the opinions of common Australians.

**Question 17** (3 marks)

**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 outer wall gives the artery ~~no~~ added strength for when it moves highly pressurised blood away from the heart. These ~~thick~~ outer walls are also very elastic and so they stretch with the pressure surges but the thick wall stops the artery from bursting.

**Question 18** (5 marks)

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

4

Anti-haemophilic factor - used to treat sufferers of haemophilia to assist with the blood clotting mechanisms  
~~state~~ Frozen red blood cells - <sup>preservation of</sup> preserves rare blood types  
Albumin - used to treat liver and kidney disease sufferers as well as those suffering from burns.

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

1

Compatibility between the donors blood and that of the person receiving the transfusion is not required. Antigen-antibody reactions will not occur because no blood type is present.