

2001 HIGHER SCHOOL CERTIFICATE EXAMINATION  
Biology

Section I – Part B (continued)

	Marks
<b>Question 22</b> (6 marks)	
(a) Cloning is a technique that could be used to increase numbers in an endangered species. What effect would cloning have on the genetic diversity of the species?	2
<p>It would make these species have the same gene and therefore would have problems when breeding because of gene type <del>in</del> if interbred.</p>	
(b) Explain TWO possible evolutionary effects of a disease entering an endangered population containing some cloned individuals.	4
<p>Well they would have the similar genes, some even the same, this would cause problems in breeding causing diseases like Haemophilia when the blood does not clot because of breeding the same genes.</p>	

**Marks**

**Question 23** (3 marks)

In twelfth-century China, people seeking protection from smallpox removed scabs from people mildly scarred from the disease. These scabs were then ground and inhaled as powder. Similarly, in the seventeenth century, an Englishwoman, Mary Montagu, injected bits of smallpox scabs into healthy children to protect them from the disease.

**3**

In the light of our current knowledge about the immune response, explain why these practices were successful.

because the immune system was able to fight the disease if they got it after being injected with a smallpox vaccination, because the immune system could now detect the disease.

**Question 24** (4 marks)

Explain the relationship between the cause and ONE symptom of ONE named non-infectious disease.

**4**

AIDS: AIDS kills the immune system by entering via a bodily fluid. Accept saliva. It weaks the immune system to the point of it cant even take a common cold.