

2010 HIGHER SCHOOL CERTIFICATE EXAMINATION
Biology

Section I – Part B (continued)

Question 23 (7 marks)

- (a) Use an example to explain why hybridisation within a species is carried out. 2

Hybridisation is carried out to genetically enhance a species by implanting part of DNA from another species. Some trout are implanted with bGH (bovine growth hormone) which makes them grow larger faster meaning they can be sold for more money in a shorter period of time.

- (b) Use an example of a named transgenic species to discuss the social and environmental impact of this technology. 5

~~Genetically enhanced trout (injected with bGH)~~ Although this practice is wide spread throughout trout farmers the genetically enhanced trout are strictly isolated from ~~wild~~ trout and kept in isolated ponds which allow no opportunity for escape into the wild. Because of this the environmental impacts are minimal as ~~the~~ the majority of the trout popⁿ (that is the popⁿ in the wild) is in no way affected and their biodiversity is not affected by this technology. Socially the trout farmers have the opportunity to earn a higher profit leading to an increased quality of life. However some people may be sceptical about eating hybridised trout leading to tension in the community.