

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

It is carried out to produce either crops or animals that are genetically superior to produce better yields in crops or larger carcasses in animals. An example is ~~the~~ hybridised corn.

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

One species is the ~~genetically~~ genetically engineered salmon. The social impact of this technology, where a gene from a different organism is put into another organism (trans-genic), is that some people question the effects eating this will have on health and that should society be acceptable of something that is changing the natural genetic make-up of an animal, the salmon. Environmental impacts include the lack of genetic biodiversity that will result from salmon being given a similar gene and the impact this will have on wild stocks if a ^{transgenic} salmon was released into the wild.