

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 used between dogs  
e.g. labradoodle ~~and~~ poodles don't  
shed hair and this benefits owners who  
~~want to~~ have allergies to dog hair.  
Allows for the desired characteristics to be achieved

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

'Golden rice' - ~~impla~~ normal rice which has been  
implanted with gene containing Vitamin A. Social -  
Large reduction in vitamin A deficiency but  
vulnerable if all rice is identical/same, if change occurs  
Strawberries which ~~are~~ have a gene from  
salmon to stop them from freezing. Allows  
for them to be grown in colder regions. Social-  
important - good source of vitamins + minerals.  
Strawberries are easily grown and good source of food  
Environment - if all the strawberries are the same  
genetically and a disturbance in the environment  
~~occurs~~ occurs all the strawberries could die → famine  
less food supply