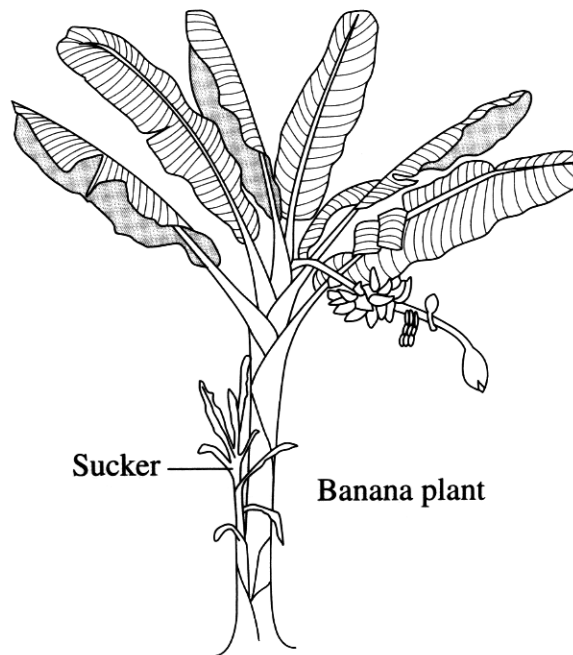


Marks

Question 24 (4 marks)

Traditionally, banana plants in Australia have been propagated asexually by cutting out and planting suckers from the adult plant.

4



There is a growing trend to produce disease-free plants in laboratories through a process of cloning from disease-free tissues from existing plants.

Assess the potential impact of this cloning process on the genetic diversity of banana plants in Australia.

The genetic diversity of banana plants in Australia will decrease as a result of cloning. Cloning basically copies the plants DNA and produces the exactly the same plant. Although the plant would be less susceptible to disease, the rest of the banana plant population would become extinct. This leads to a decrease in variation within a species.