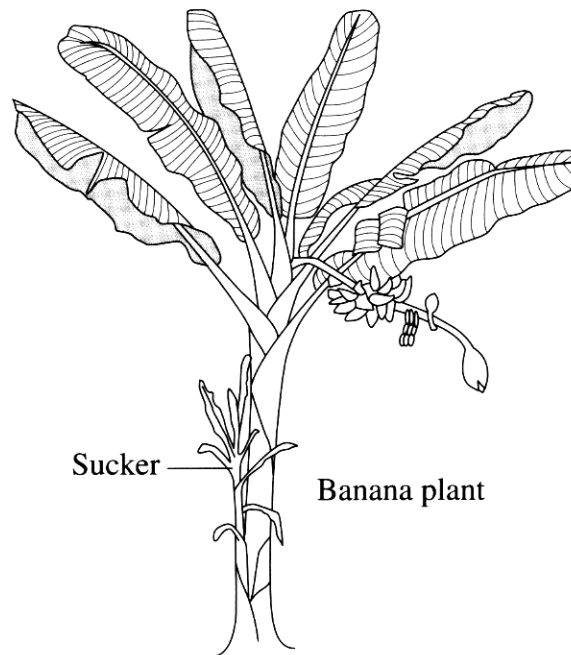


**Marks**

**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 cloning process ~~is~~ would have quite a detrimental effect on the genetic diversity of these plants in Australia, as a clone is just an identical copy of the organism from which it came. - this would limit & reduce the variability in the gene pool of bananas in Australia. If a new disease somehow came about which is presently unknown, it could wipe out the entire banana population in Australia, as they would be identical genetic copies of each other, containing absolutely no variation or resistance.