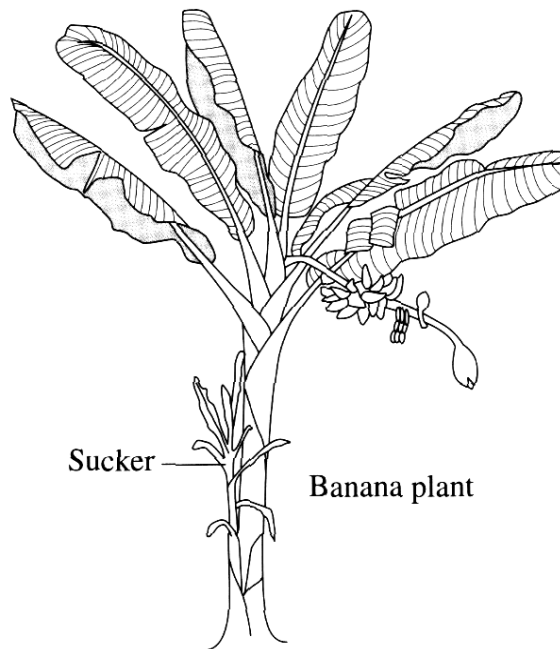


**Marks**

**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.

This will reduce genetic diversity of the banana plants within Australia. If all cloned banana plants are the only ones used, then if a new disease is introduced, it could wipe out all the trees. However through asexual reproduction, it allows for biological errors to occur and eventually create a more resistant species, as opposed to the cloned banana plants, which if display any variation would be destroyed.