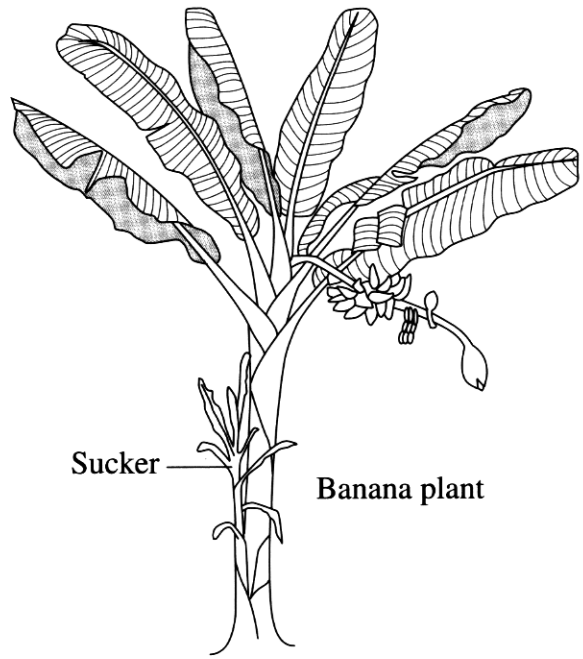
Marks

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 would normally have a large impact on a species genetically. However as the Banna Plant is already being reproduced asexually, cloning wouldn't contribute to decreasing it's natural gene pool. The plants are already at risk of being completely wiped out by having no genetic variation, if a disease were to threaten the population. This means there is no need to clone the plant other then to protect it from possible disease. Similar biotechnological techniques have produced Bt Corn, without ~~the~~ ~~from this added gene~~ ~~had no effect~~ having an effect on the taste of the corn. By adding a disease resistant gene the banna plant may be protected from current or potential threat. And could be a benefit, - 19 - as the plant is already reproduced asexually this would not effect any of it's characteristics.