

Question 20.

In order to manage an ecosystem ~~effectively it is important to see~~ in a sustainable manner it is important to understand the way it functions and how it responds to many sources of environmental stress.

The Great Barrier Reef (GBR) has many unique factors which make up its functioning conditions have to be just right for ~~an~~ this ecosystem ~~to~~ to function. The temperature of the water has to be between 21 and 25°C if the temperature exceeds or ~~deci~~ declines below this level the effect on the reef can be ~~dis~~ disastrous as was seen in many reefs ~~around~~ around the



world where coral bleaching occurred this is when the tiny polyp leaves the coral leaving a white skeleton which is now dead. What causes the polyp to leave the coral is the rise in temperature of the water and the polyp can no longer sustain the change in temperature.

Coral Reef like the ABR only occurs on the ~~at~~ Equator and ~~around~~ ^{about 29°} degrees either ~~at~~ side. Because of the water temperature found here which is tropical. ~~at~~

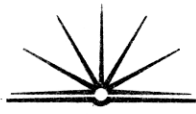
The quality of the water also affects the Coral Reef greatly. The water has to be clear enough for ~~the~~ photosynthesis to occur because the ~~at~~ coral need a certain amount

of sunlight to grow.

Human activity such as dumping of waste into the ocean and farming runoff affect the water. The nutrients in human waste and chemicals produce algae which cling onto the coral and ~~kill~~ suffocate it. When this happens coral reefs become underwater deserts.

The water level is also important for coral to grow and live. Coral grow best when water is ~~at~~ no higher than about 20 metres. Some coral grows below this but not the coral ~~the~~ which is most common.

Another ecosystem such as Rainforests

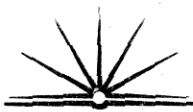


Need conditions which are just right to grow these conditions have occurred over millions of years.

Rainforests need to have ~~adeq~~ enough annual rainfall to function ~~properly~~ properly this is why rainforests occur usually along the coastal or tropical areas of the world.

The Minnimurra Rainforest located near Kiama about 200 kms from Sydney is a great example of how an ecosystem functions in Australia.

This Rainforest has ~~4~~ about 4 layers of trees which all interact together in forming and maintaining the Rainforest. The first layer is the canopy which is to protect the ~~the~~ Rainforest from too much sunlight. This allow the understorey



to grow which is made up of smaller trees which most animal life live in and supply most of the leaf litter which coats the Rainforest floor and holds in all the moisture for the plant life. ~~the~~

The next layer is of smaller ferns and such which line the ~~the~~ Bed of the Rainforest. As mentioned earlier the Rainforest floor is very important in maintaining moisture in the rainforest.

All the layers which make up the Rainforest are important without one the other ~~does~~ does not exist.