

## Ecosystem sample answers

A \* PUPIL.....

10 a) (i) Explain how coniferous trees are adapted to the climate. (4)  
*Coniferous trees are adapted to the climate by having downward sloping branches which helps to get rid of snow which could snap the branches. They also have thin needles which reduce evapotranspiration from the tree. Furthermore they have wide, shallow roots-apart from the top root for stability because most of the nutrients are on the surface in the layer of humus. They also have thick bark to stop the sap freezing and flexible trunks to bend in stormy winds. (4)*

(ii) Give two characteristics of the soil under coniferous forests. (2)  
*It has an iron pan which contains lots of nutrients and upper layers that don't have nutrients.  
It has lots of leaching to drag the nutrients down. (2)*

b) (ii) Describe and give your views about possible solutions that may reduce the amount of deforestation in the future. (6)  
*Possible solutions to deforestation include using sustainable methods to cut down certain trees like mahogany. They could just find and cut down those trees instead of cutting down whole areas of forests to get to one or two trees. Furthermore instead of cutting down and using the land for crops they should plant in between the trees like the indigenous people do. Also the government could set up zones where there would be no logging and they could charge companies to send research teams in there to search for new products. Also they could use the trees sustainably like tapping rubber trees. They could also use farming techniques such as slash and burn or they could exercise higher controls over the area. I think that the rainforest should be used sustainably and companies should have to pay the government to go into the rainforest. (5)*