

GCSE Biology B (Twenty First Century Science)
J257/03 Breadth in Biology (Higher)

Question Set 12

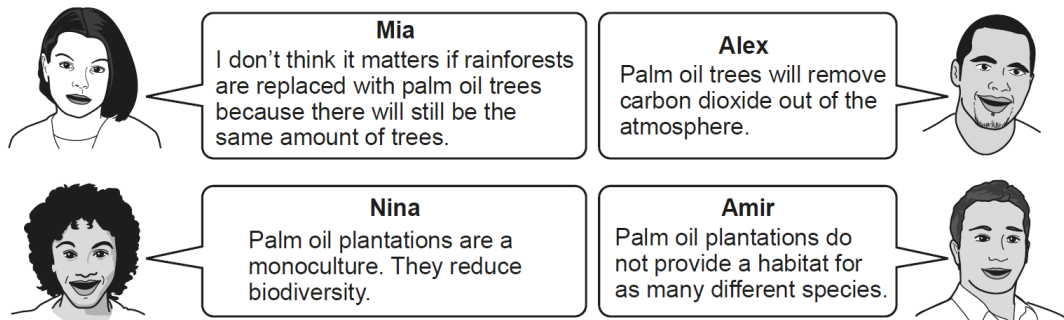
1

Deforestation is happening to rainforests in Malaysia and Indonesia.

The rainforests are being replaced with palm oil trees.

Palm oil is used in many products, such as soaps, body creams and food.

(a) (i) Some people talk about this.



Which **two** people have the best arguments as to why we should conserve rainforests? **Nina and Amir**

[2]

(ii) Describe the effect deforestation can have on climate change.

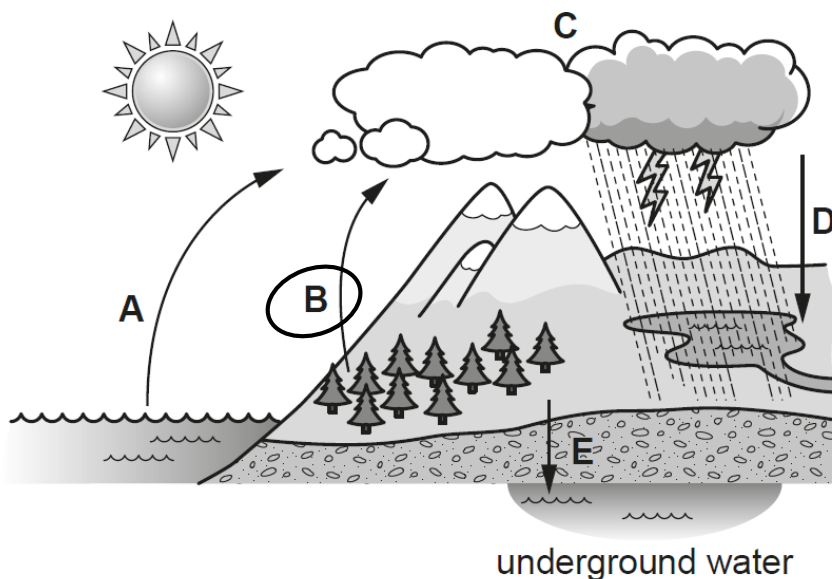
[2]

reduces CO₂ absorbed by trees

Cutting down trees or burning them causes the release of CO₂ into the atmosphere. This is a greenhouse gas so traps energy in the atmosphere, warming the Earth and causing global temperatures to rise.

Deforestation can affect the water cycle.

The diagram below shows the water cycle.



(b) (i) Put a **ring** around the letter, **A, B, C, D** or **E**, in the diagram which shows the process of transpiration.

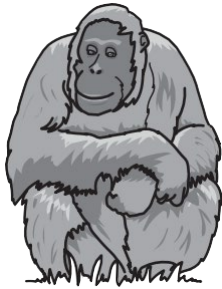
[1]

(ii) Describe the effect deforestation will have on the amount of transpiration.

[1]

Deforestation removes trees so the amount of transpiration will decrease.

- (c) Orangutans live in the rainforests of Malaysia.



Orangutan

A century ago there were 230 000 orangutans.

The table shows the estimated number of three species of orangutans which remain today.

Species of orangutan	Number
Bornean	104 700
Sumatran	7500
Tapanuli	800

- (i) Calculate the percentage (%) of orangutans which remain today.

Give your answer to 2 significant figures.

$$\frac{104700 + 7500 + 800}{230000} \times 100 = 49\%$$

Percentage =49.....% [3]

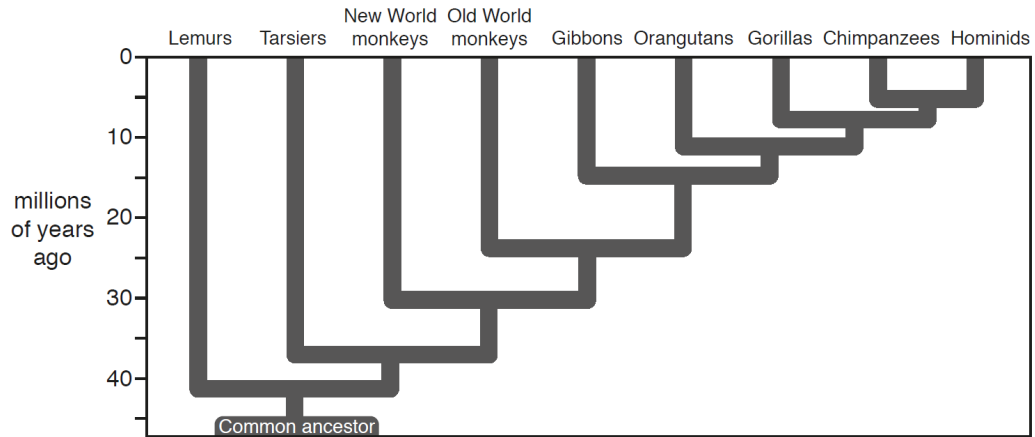
- (ii) The number of orangutans living in the rainforests of Malaysia is an estimate.

Explain why.

[1]

Not all orangutans will be counted as some may inhabit unknown areas deep in the rainforest.

- (d) (i) The diagram shows the evolutionary relationship of the orangutan to some other primates.



Which one of the other primates is the orangutan **least** closely related to?

Lemur

[1]

- (ii) Which biological molecule can provide scientists with evidence of how closely related two species are?

Tick (✓) **one** box.

Amino acid

DNA

Glucose

Lipid

[1]

Total Marks for Question Set 12: 12

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