# CHAPTER 22 HUMANS AND THE ENVIRONMENT

(0610/22/February/March 2017)

1.

How does cutting down trees contribute to the greenhouse effect?

A There will be less carbon dioxide absorbed.

B There will be less oxygen absorbed.

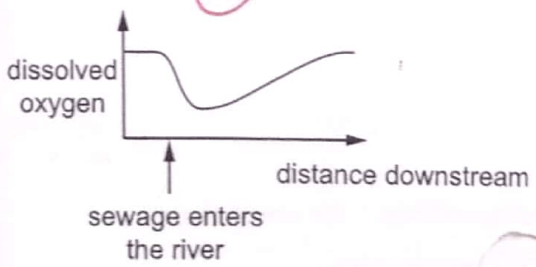
C There will be less shade from trees.

D The soil will become dry.

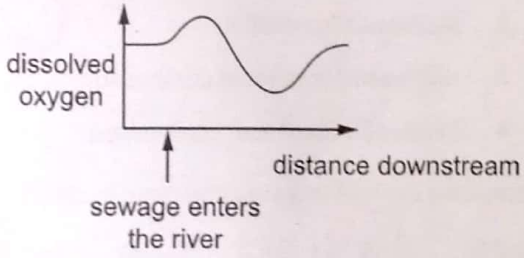
2.

Which graph shows the effect of pollution by untreated sewage on the amount of oxygen dissolved in a river?

A




B

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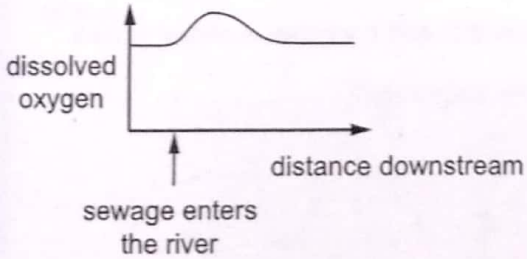


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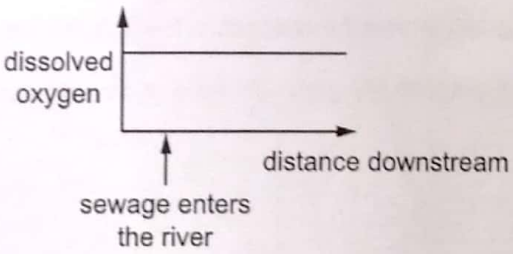


0610/21/O/N/17

3.

What is **not** a reason for conservation programmes?

A to introduce new species

B to maintain nutrient cycles

C to maintain resources

D to protect vulnerable environments



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4.

Some examples of the waste products of human activity are discarded household rubbish, excess fertiliser, industrial chemicals and untreated sewage.

Which of these can **both** cause increased growth of aquatic plants?

A chemical waste and discarded household rubbish

B discarded household rubbish and excess fertiliser

C excess fertiliser and untreated sewage

D untreated sewage and chemical waste

*0610/21/M/J/17*

5.

The processes listed in 1–4 will affect the concentration of carbon dioxide in the atmosphere.

1 increased deforestation

2 increased forestation

3 decreased fossil fuel combustion

4 increased fossil fuel combustion

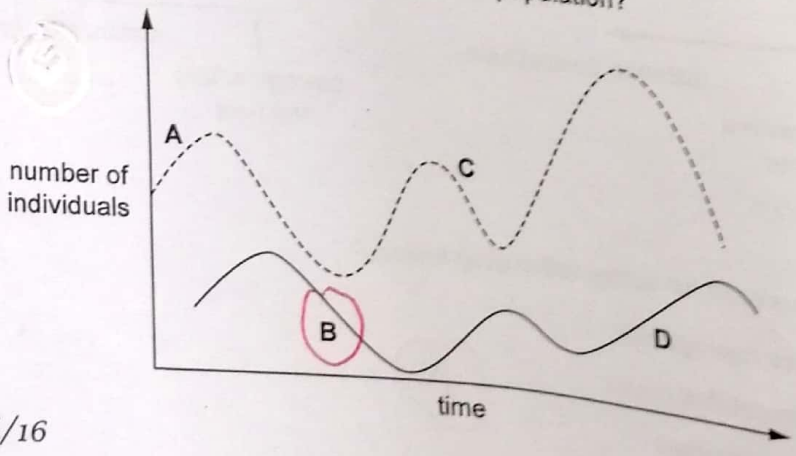
Which processes would increase the concentration of carbon dioxide in the atmosphere?

A 1 and 3 B 1 and 4 C 2 and 3 D 2 and 4

6.

The graph shows the changes in the populations of predator and prey over a period of time.

Which point on the graph shows a decrease in predator population?




*0610/22/F/M/16*

7.



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The careless use of nitrogenous fertiliser near rivers and lakes can cause eutrophication.

This results in the death of fish.

What is the direct cause of the death of the fish?

A Decomposers reduce the amount of dissolved oxygen in the water.

B Nitrates are toxic to plants.

C The rapid growth of producers uses up all the available nutrients.

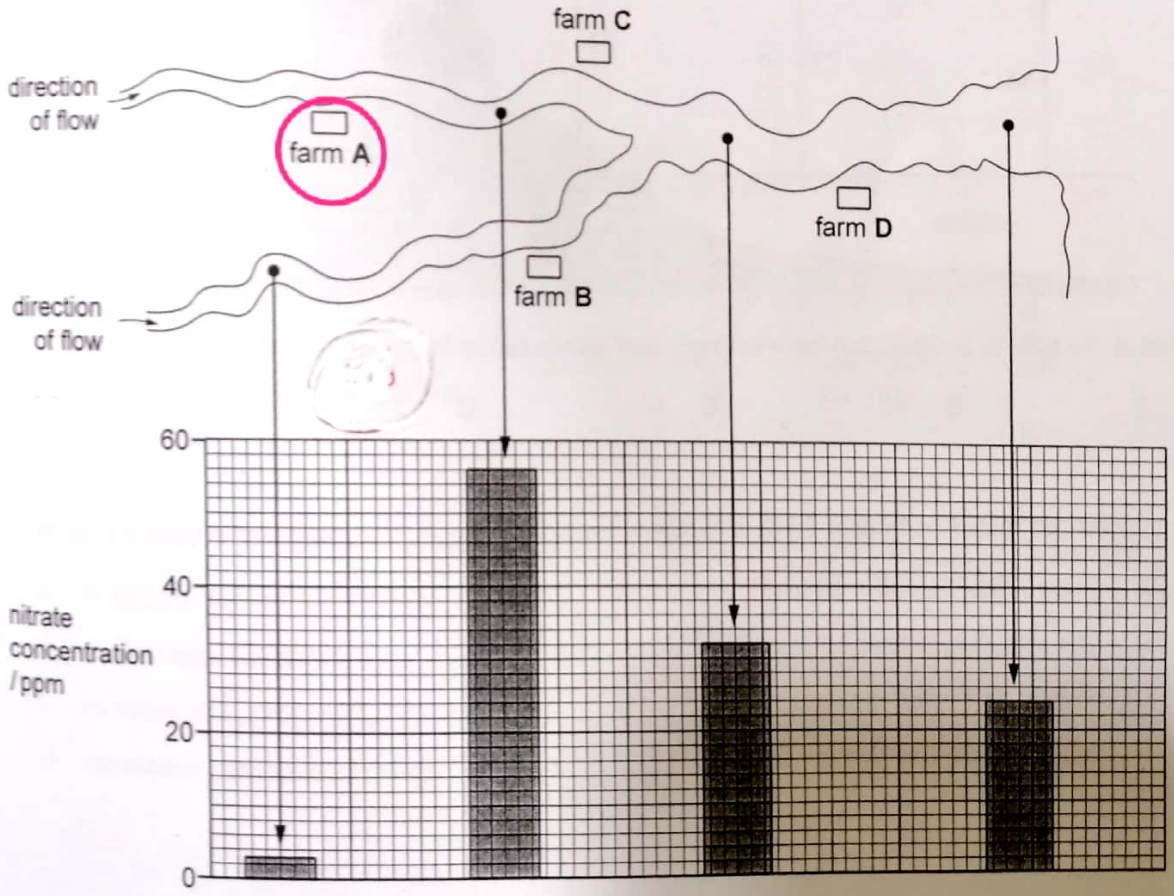
D The sudden increase in the number of bacteria increases the spread of disease.

0610/21/M/J/16

8.

40 The diagram shows the positions of four farms and the concentrations of nitrate at different points in a river.

Which farm is likely to have been using too much fertiliser on its land?




9.



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Which effect is **least** likely to occur as a result of deforestation?

A an increase in biodiversity

B an increase in soil erosion

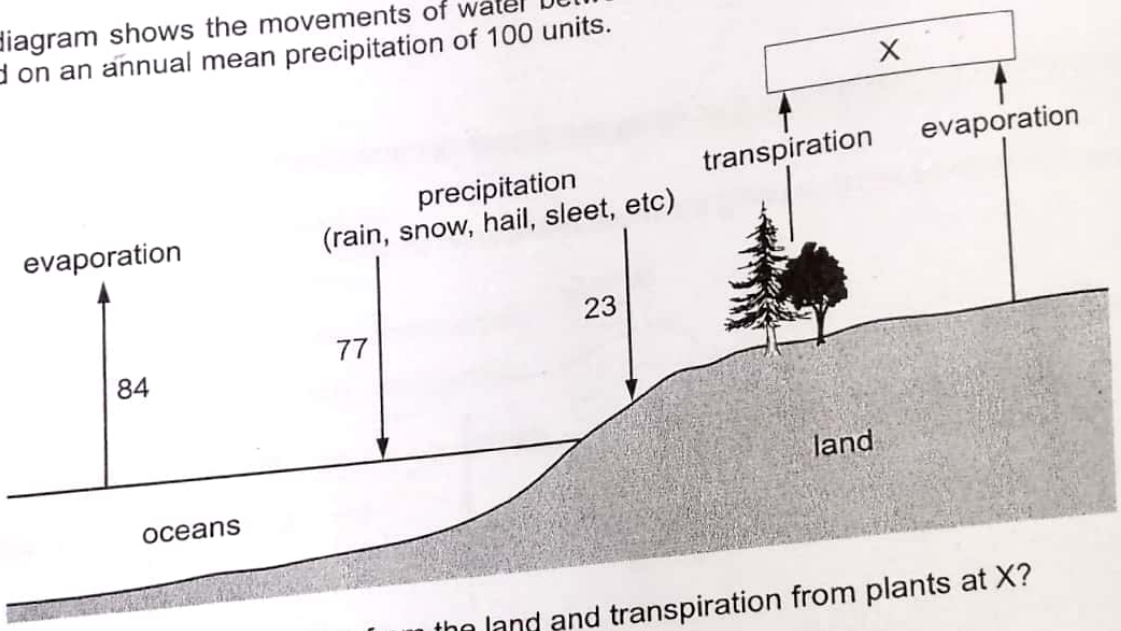
C an increase in the level of carbon dioxide in the atmosphere

D an increased risk of flooding

*0610/11/M/J/15*

*10.*

The diagram shows the movements of water between oceans, land and the air. The figure is based on an annual mean precipitation of 100 units.




What is the total of evaporation from the land and transpiration from plants at X?

A 7 B 13 C 16 D 77

*11.*

Which two gases **both** contribute to global warming?

A carbon dioxide and methane

B methane and oxygen

C oxygen and sulfur dioxide

D sulfur dioxide and carbon dioxide



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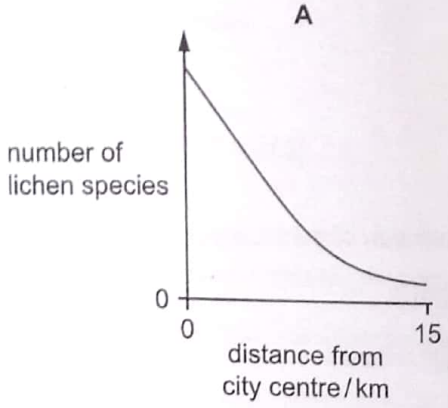
12.

Lichens are organisms that do **not** grow well in air containing sulfur dioxide.

Which graph shows the change in number of lichen species from the centre of an industrial city to the countryside 15 km away?

A

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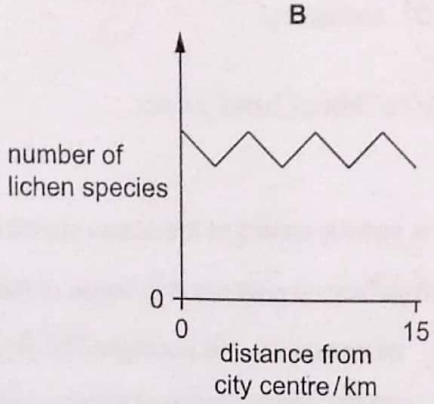


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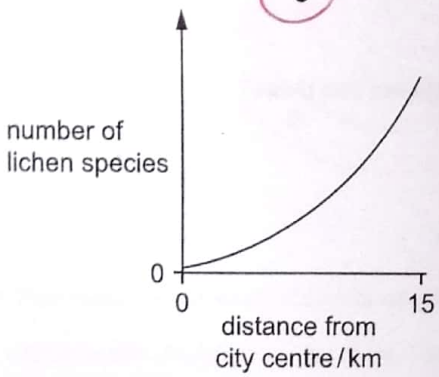


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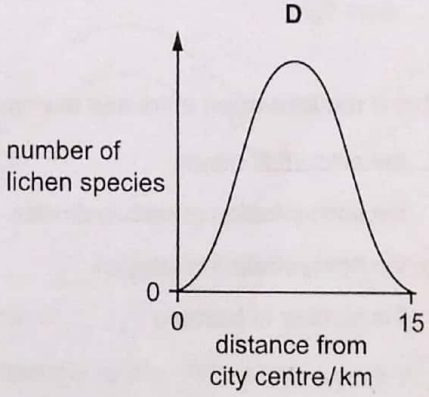


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13.

What is a reason for conserving plant species?

A to absorb oxygen from the air

B to decrease rainfall

C to obtain drugs for medicinal use

D to release carbon dioxide into the air

14.



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What is **reduced** after deforestation?

A force of rain hitting the ground

B rainwater run-off

C soil erosion

D soil fertility

*(0610/11/May/June 2014)*

15.

The surface waters of the ocean contain a population of microscopic plants.

Which factor would result in **fewer** of these plants?

A an increase in the population of microscopic animals

B greater concentration of mineral nutrients

C higher temperature

D more light

16.

What is reduced when untreated sewage is released into rivers?

A the amount of nitrate

B the concentration of carbon dioxide

C the concentration of oxygen

D the number of bacteria

17.

Which pollutants of water can lead to eutrophication?

| | fertilisers | herbicides | insecticides | sewage |
|---|---|---|---|---|
| A | ✓ | ✓ | ✗ | ✗ |
| B | ✓ | ✗ | ✗ | ✓ |
| C | ✗ | ✓ | ✓ | ✗ |
| D | ✗ | ✗ | ✓ | ✓ |



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) Which activity will be **least** likely to lead to the extinction of species?

A conservation

B deforestation

C use of herbicides

D use of pesticides

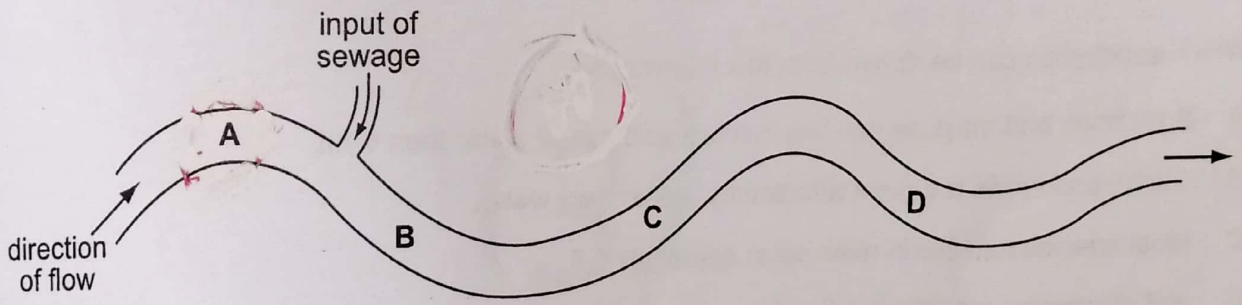
*(0610/11/May/June 2013)*

*21.*

The bloodworm is found in heavily polluted water.

The diagram shows where raw sewage flows into a river.

Where would there be fewest bloodworms?




What describes eutrophication and its effect on a river?

A Nutrients are depleted in the river, causing bacteria to die. This allows plants to grow and deoxygenate the water.

B Nutrients are depleted in the river, causing plants to die. These decompose, so the water is deoxygenated.

C Nutrients enter the river, causing algae to grow. These die and decompose, so the water is deoxygenated.

D Nutrients enter the river, causing plants to grow. These provide extra food for animals, which deoxygenate the water.

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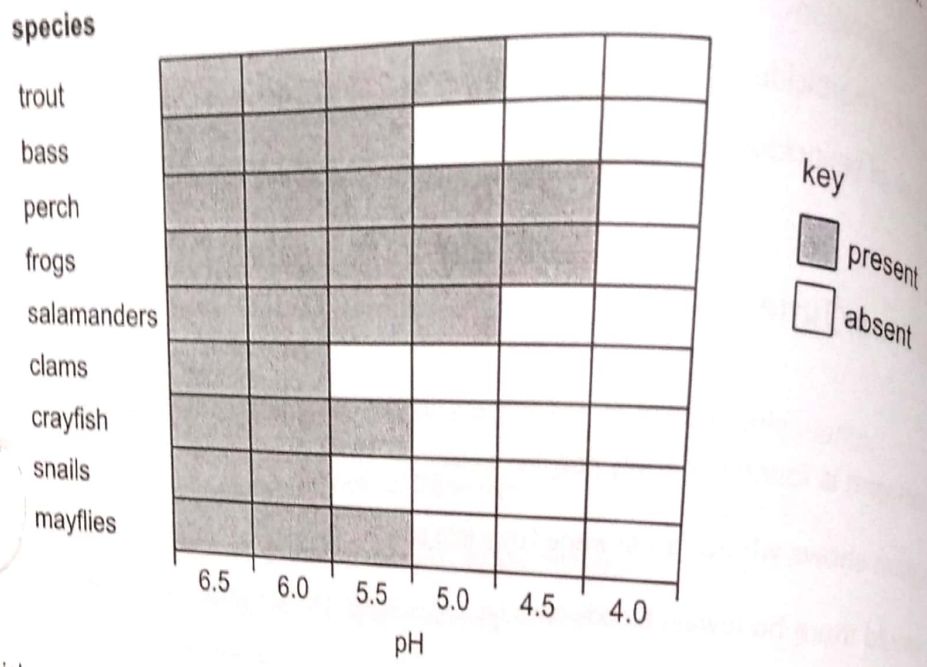
23.

The chart shows which species of different animals are present in rivers of different pH.




Which conclusion can be drawn from this information?

A Both frogs and mayflies can live in more acidic river water than trout.

B Clams and snails are most affected by acidic river water.

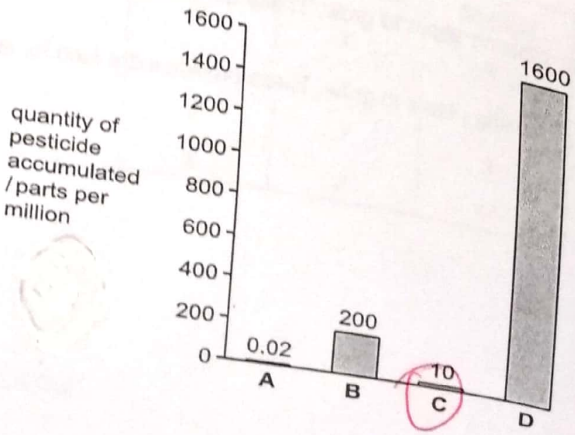
C Most species can live in river water below pH 5.5.

D Not all species are affected by acidic river water.

24.

The graph shows the quantities of pesticides that accumulate in four populations, each at different trophic levels in a food chain.

Which population is most likely to be herbivores?



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