

Q1. (June 2018)

- 6 The table shows changes in the forest cover in some continents of the world.

Continent	Total forest cover (millions of hectares)		
	1990	2000	2005
Africa	699	656	635
Asia	574	567	572
Europe	989	998	1001
South America	891	853	832

What is the approximate percentage decrease in the area of South America covered by forest between **1990** and **2005**?

- A** 0.9%
- B** 1.1%
- C** 6.6%
- D** 7.1%

Your answer

[1]

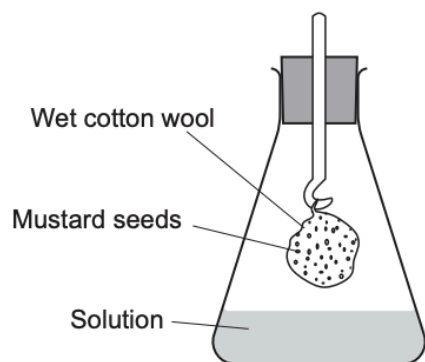
Q2. (June 2018)

21 A student investigates the effect of acid rain on seed growth.

She dips some cotton wool in 20cm^3 of water. She then puts 20 mustard seeds onto the cotton wool and places it inside a flask. The student puts the remaining water into the flask with the cotton wool.

She repeats this four more times, each time using different solutions of water and dilute sulfuric acid.

One of the flasks is shown in the diagram.



After **8 days** she counts how many of the seeds have germinated.

The table shows her results.

Volume of water in flask (cm^3)	Volume of dilute sulfuric acid in flask (cm^3)	Number of seeds that germinated
20	0	18
16	4	15
8	12	13
4	16	6
0	20	2

(a) What is the dependent variable in this investigation?

..... [1]

(b) State why the student changed the volume of water in each flask.

..... [1]

7 Which of these is an example of ecotourism?

- A Setting up monkey parks in the UK.
- B Allowing people to sponsor endangered animals.
- C Encouraging people to view animals in their natural environment.
- D Educating children about the benefits of conservation.

Your answer

[1]

Q4. (June 2023)

6 A rare species of animal is found in a less economically developed country.

The government of the country want to set up a conservation area.

Which of these is **unlikely** to be a problem for the government?

- A Making agreements with all the people that own the land.
- B Persuading conservation organisations that preserving the ecosystem is important.
- C The cost of the conservation scheme.
- D The need to allow ecotourism without causing damage.

Your answer

[1]

Q5. (June 2024)

(d) Mongooses were introduced into St Lucia by farmers to control pests in their fields.

(i) Which term describes this type of pest control?

Tick (✓) **one** box.

Abiotic control

☐

Biological control

☐

Chemical control

☐

Genetic control

☐

[1]

(ii) The mongooses soon spread throughout St Lucia.

- Female mongooses can breed 3 times each year and produce 3 babies each time.
- The St Lucia racer lays about 5 eggs each year.

Explain why the mongooses almost made the snake extinct.

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 [1]

(e) By 1973 the St Lucia racers were thought to be extinct but a small number were found on a small island off the coast of St Lucia.

There was a plan to build a bridge to allow tourists to visit the island.

(i) Suggest why these snakes have survived on the island.

.....
 [1]

(ii) Suggest why scientists are against the plan to build the bridge.

.....

 [2]

- 18** In many areas, the number of elephants living in Africa is decreasing. They are often killed by hunters.

The table shows how the number of elephants in Africa has changed.

Year	1979	1989	2015
Population size	1.3 million	600 000	400 000

- (a) Calculate the percentage decrease in the population size between 1979 and 2015.

Give your answer to **2** significant figures.

Percentage decrease = % **[3]**

- (b) What is the best description for how the population of elephants changed between 1979 and 2015?

Tick (✓) **one** box.

Dropping at a decreasing rate

☐

Dropping at a steady rate

☐

Dropping at an increasing rate

☐

[1]

- (c) In some areas of southern Africa, elephants are very important for ecotourism.

- (i) Explain what is meant by the term **ecotourism**.

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.....

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..... **[2]**

(ii) In ecotourism areas, elephant numbers are increasing.

This is causing problems as the elephants are eating crops.

Scientists therefore want to control the population size.

They have used three main ways to do this:

- **Culling** – a certain number of elephants from each population are killed.
- **Relocation** – elephants are moved to a country where their numbers have dropped.
- **Contraception** – female elephants are treated to reduce their fertility.

Suggest **one** disadvantage for each of these methods.

Culling

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Relocation

.....

Contraception

.....

[3]

(iii) Scientists are using a new method of contraception to try and restrict the numbers of elephants.

This involves injecting antibodies which block the sperm receptor sites on eggs.

Describe **one** way that this method is different to the contraceptive pill used by female humans.

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[1]

- (c) Birds such as blackbirds make nests in hedges.

Fig. 16.3 shows a food web that occurs in a hedge next to a field of wheat.

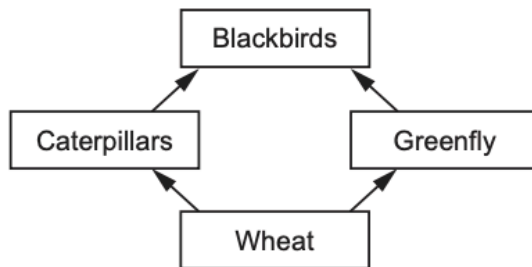


Fig. 16.3

Farmers are replanting hedges in their fields.

Use information from the food web in **Fig. 16.3** to explain how this could increase the yield of wheat.

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..... [2]