

ACADEMIC READING PRACTICE TEST 8 Part 1

READING PASSAGE 1

Questions 1 - 13

You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.

Myxomatosis is a highly lethal disease affecting rabbits caused by the myxoma virus. The disease was uncovered in South America in 1896 where it had a devastating effect on the rabbit population there. It was found that it was mainly the European rabbit imported early that century that contracted the disease as resistance had been built up by the local populations.

Up until recently rabbits have been extensively hunted for both their fur and their meat. This activity as well as the presence of other predators such as foxes and feral cats acted in the past to keep down the population of rabbits and man is still the main predator in South American countries. However, in other countries man has had a less and less important role as a predator and has in fact helped to reduce the population of the rabbits' natural predators through habitat destruction, urbanisation and cultivation. These changes have resulted in a precarious balance of the rabbit population in many areas where any factors enhancing rabbit survival can result in a huge population boom. Rabbits compete with livestock and native herbivores for food. They are highly selective grazers that concentrate on the most nutritious plants, including seedlings, and eat them to below ground level. This can change the species composition of pastures and reduce productivity. They act as competition for hares and other herbivores and grazing animals, reducing the agricultural output of the land.

The European wild rabbit was introduced into Australia in 1759 when Thomas Austin imported 24 rabbits from England where it was also an exotic animal, having been introduced from Spain during the Norman conquests. He released the rabbits onto his property for sport hunting. The rabbit spread so rapidly that it reached the Queensland - New South Wales border by 1886. Almost all of the rabbits in Australia are descendants of the 24 original rabbits and are genetically homogenous. This fact beyond all others might be the cause of the spectacular effect the introduction of the virus had on the rabbit population as a whole. The lack of any herbivores capable of competing with the rabbit for food and burrows resulted in the decline of many species of native wildlife. This applied particularly to the small ground-dwelling mammals of the arid lands. This situation was made worse by the lack of a large population of predators able to deal with this new prey. However, to the human population of Australia, all of this was irrelevant next to the economic loss caused by rabbits grazing on pasture used by sheep and other herbivores, reducing the number of sheep capable of grazing per acre, and the loss of wool and revenue thus caused.

It was not until 1950 that myxomatosis was successfully released among Australian rabbits. This occurred after much debate, experimentation of what the effects of such a drastic move would be and political wrangling. After a slow start the initial results fulfilled all expectations with a mortality rate of over 90%. The virus spread most quickly during the summer when the mosquito population was at its maximum, resulting in very successful transmission of the virus between separate colonies. Myxomatosis is accompanied by a profuse ocular discharge as well as a discharge from skin lesions, both of which are rich in virus. These discharges allow transmission of the virus by direct contact. Transmission via the respiratory tract is also possible if rare. Infection does not occur by feeding and therefore there is no faeco-oral transmission.

A wide number of mosquitoes, fleas, ticks, mites and lice have also been shown to be vectors. This allows the spread of the virus to take place between colonies of rabbits and in the case of the fleas, allows rabbits from a different colony to become infected by coming into contact with flea-infested carcasses of rabbits in warrens where all the occupants have been killed by myxomatosis some months previously.

The initial Australian epidemic continued during the next few years, spreading and remaining highly virulent, especially in the summers when the mosquito population was at its highest. Epidemics were often started by the continued inoculation by farmers of the wild rabbit population every summer and spring, a method still used today. However, the capacity for the virus to survive over the winter favoured a less lethal disease, and this, combined with genetic resistance, has resulted in a much reduced mortality rate, even though sporadic outbreaks of the original virulent virus sometimes occur.

Rabbits which recover from myxomatosis are immune to re-infection for the rest of their lives. Also immune mothers pass passive immunity to their young. However, due to the short lifetimes of rabbits, often little more than a year in the wild, this has little effect in practice. Of more importance has been the in-built genetic immunity of certain rabbits in the population. Survival of these rabbits, combined with their high reproduction rate and the death of the competition, meant that a population of genetically more resistant rabbits was quickly built up.

Today myxomatosis in Australia kills only about 40% of infected rabbits but rabbit numbers are much lower than they would have been in the absence of this disease. However, they still are a major pest in Australia and other methods for their eradication are being investigated.

Questions 1 - 5

Look at the following 10 statements **A - J**. According to Reading Passage 1, **FIVE** statements are **TRUE**. The other **FIVE** statements are either **FALSE** or the information is not given in the passage. Choose from the appropriate letters **A - J** which statements are true and write them on your answer sheet for questions **1 - 5**. The answers may be written in any order.

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| A | Predators helped keep Australian rabbit numbers in check before the population boom. |
| B | Rabbits can still infect other rabbits after they have died from myxomatosis. |
| C | The rabbit is not a native animal to England. |
| D | Rabbits that recover from myxomatosis can still die if they are re-infected. |
| E | Enthusiastic support of myxomatosis introduction into Australia ensured that the introduction process went forward quickly. |
| F | Selected wild Australian rabbits are injected every year with the myxoma virus. |
| G | Discharge from the eyes of infected rabbits contributes to the spread of myxomatosis. |
| H | Interbreeding with Asian rabbit breeds has helped boost the Australian rabbits' immunity to myxomatosis. |
| I | 60% of Australian rabbits are now unaffected by myxomatosis. |
| J | The main reason for releasing myxomatosis into Australia was financial. |

Questions 6 - 12

Using **NO MORE THAN THREE WORDS OR A NUMBER** from Reading Passage 1, answer the following questions.

Write your answers in boxes **6 - 12** on your answer sheet.

- 6 Where are humans still the main threat to rabbits?
- 7 Apart from damage to their natural environment, what **TWO** other factors have reduced the amount of animals that feed on rabbits?

- 8 Why were rabbits originally taken to Australia?
- 9 What are **TWO** things that rabbits challenge other Australian plant eating animals for?
- 10 Which Australian raw material was particularly affected by the increase in Australian rabbit numbers?
- 11 What helped the spread of myxomatosis during the Australian summers?
- 12 What other factor has united with a more harmless form of the myxoma virus to allow more Australian rabbits to survive myxomatosis infection?

Questions 13

From the list below choose the most suitable title for Reading Passage 1. Write the appropriate letter (**A - E**) in box **13** on your answer sheet

- A A Threat to Humanity
- B Australian Diseases
- C The Disease that Saved Australian Farmers
- D The Genetics of Australian Rabbits
- E The Pathology of Rabbit Infections