Name: ……..…..

RADLEY

Academic Scholarship 2018

Biology

Time allowed – 30 Minutes

Total = 33 marks

BIOLOGY: Père David's Deer

The existence of this species was first discovered by a French missionary, one Father Aramand David (1826-1900), during the course of his work in China in the early eighteen hundreds. In those days China was as little known, **zoologically** speaking, as the great forests of Africa, and so Father David, who was a keen naturalist, spent his spare time collecting **specimens** of the flora and fauna to send back to the museum in Paris. In 1865 his work took him to Peking, and while he was there he heard a rumour that there was a strange herd of deer kept in the Imperial Hunting Park, just south of the city. He was intrigued by these stories and was determined that, in spite of the park's guards, he was going to look inside the walls and see the animals for himself. One day he got his opportunity and was soon lying on top of the wall, looking down into the forbidden park and watching the various **game animals** feeding among the trees below him. Among them was a large herd of deer and Father David realised that he was looking at an animal he had never seen before, and one which was, very probably, new to science.

Father David soon found out that the deer were strictly **protected**, and for anyone caught killing or harming them the sentence was death. He knew that any official request he put forward for a specimen would be politely refused by the Chinese authorities, so he had to use other, less legal methods to get what he wanted. He discovered that the Tartar guards occasionally improved their rather sparse rations by the addition of a little venison; they were well aware what the penalty for their **poaching** would be if they were caught, and so, in spite of the missionary's pleadings, they refused to sell him the skins and antlers of the deer they killed, or indeed anything that might be evidence of their crime. However, Father David did not give up hope, and after a considerable time he was successful. He met some guards who were either braver or perhaps poorer than the rest, and they obtained for him two deer skins, which he triumphantly shipped on to Paris. As he had expected, the deer turned out to be an entirely new **species**, and so it was named, in honour of its discoverer, the Père David deer – Father David's deer.



Naturally, when zoos in Europe heard about this new kind of deer they wanted specimens for exhibition, and the Chinese authorities allowed a few of the animals to be sent to the Continent. Although no one realised this at the time, it was this action that was to save the animals. In 1895, thirty years after the Père David deer first became known to the world, there were great floods around Peking; the Hun-Ho river **overflowed** its banks and caused havoc in the countryside, destroying the crops and bringing the population to near starvation. The waters also undermined the great walls round the Imperial Hunting Park. Parts of it collapsed, and through the gaps the herd of Père David deer escaped into the nearby countryside, where they were quickly killed and eaten by the hungry peasants. So the deer **perished** in China, and the only ones left were the handful of specimens in the various zoos of Europe.

Shortly before this disaster overtook the deer in China, a small herd of them had arrived in England. The then Duke of Bedford had, on his estate at Woburn, Bedfordshire, a wonderful **collection** of rare animals, and he had been most anxious to try to establish a herd of this new Chinese deer there. He bought as many specimens as he could from the continental zoos, 18 in all, and released them in his park. To the deer this must have seemed like home from home, for they settled down quickly and began to breed. By 1960, the herd that had started with just eighteen now numbered over a hundred and fifty animals, the only herd of Père David deer in the world.

In 1967, however, there was a massive **outbreak** of foot and mouth disease in Great Britain. The Père David deer were once again in danger – if this one herd caught the disease then the entire species would become extinct. For this reason, the Duke of Bedford ordered that the herd be split in two as a safeguard. One half of the deer remained at Woburn and the rest were sent to an estate in Northamptonshire where they remain to this day. In recent years, two smaller herds have been set up elsewhere in the UK. There are probably about 400 Père David Deer left in the world today and they are the only type of deer to be classed as "**Critically Endangered**". If it wasn't for zoos and captive breeding, they would be extinct.

Adapted from "Encounters with Animals" by Gerald Durrell

Using the information in the passage and your own knowledge, answer these questions:

1. What is meant in the passage by the words indicated in bold as follows:

i.	Zoologically	vi.	Species	
ii.	Specimens	vii.	Overflowed	
iii.	Game animals	viii.	Perished	
iv.	Protected	ix.	Collection	
v.	Poaching	x.	Outbreak	[10]

2. Why did it take so long for European scientists to find out that the Père David Deer even existed? [2]

3. What factors made the deer so vulnerable to extinction in China? [3]

4. The story of the Père David Deer changed many people's opinions of zoos. Make a table with the headings "Good Points about Zoos" and "Bad Points about Zoos" and list as many of each as you can. [5+5]

5. Although they are less rare than they used to be, Père David's Deer are still classed as "critically endangered":

i) Explain what this means [1]
ii) List some other animals and plants that are also classed in this way [2]

6. Deer are furry animals with backbones that feed their young on milk.

i) What sort of animal does this make them? [1]
ii) Name the four other animal types or "classes". [4]