**Why zoos are good**

Scientist David Hone makes the case for zoos

**A**

In my view, it is perfectly possible for many species of animals living in zoos or wildlife parks to have a quality of life as high as, or higher than, in the wild**. Animals in good zoos get a varied and high-quality diet with all the supplements required, and any illnesses they might have will be treated**. Their movement might be somewhat restricted(Hạn chế), but they have a safe environment in which to live, and they are spared bullying and social ostracism by others of their kind. **They do not suffer from the threat or stress of predators (kẻ săn mồi), or the irritation and pain of parasites or injuries. The average captive animal will have a greater life expectancy compared with its wild counterpart, and will not die of drought, of starvation or in the jaws of a predator**. A lot of very nasty things happen to truly ‘wild’ animals that simply don’t happen in good zoos, and to view a life that is ‘free’ as one that is automatically ‘good’ is, I think, an error. Furthermore, zoos serve several key purposes.

**B**

Firstly, zoos aid conservation. Colossal numbers of species are becoming **extinct** across the world, and many more are increasingly threatened and therefore risk extinction. Moreover, some of these collapses have been **sudden**, dramatic and unexpected, or were simply discovered very late in the day. A species protected in captivity can be bred up to provide a reservoir population against a population crash or extinction in the wild. A good number of species only exist in captivity, with many of these living in zoos. Still more only exist in the wild because they have been reintroduced from zoos, or have wild populations that have been boosted by captive bred animals. Without these efforts there would be fewer species alive today. Although reintroduction successes are few and far between, the numbers are increasing, and the very fact that species have been saved or reintroduced as a result of captive breeding proves the value of such initiatives.

**C**

Zoos also provide education. Many children and adults, especially those in cities, will never see a wild animal beyond a fox or pigeon. While it is true that television documentaries are becoming ever more detailed and impressive, and many natural history specimens are on display in museums, there really is nothing to compare with seeing a living creature in the flesh, hearing it, smelling it, watching what it does and having the time to absorb details. That alone will bring a greater understanding and perspective to many, and hopefully give them a greater appreciation for wildlife, conservation efforts and how they can contribute.

**D**

In addition to this, there is also the education that can take place in zoos through signs, talks and presentations which directly communicate information to visitors about the animals they are seeing and their place in the world. This was an area where zoos used to be lacking, but they are now increasingly sophisticated in their communication and outreach work. **Many zoos also work directly to educate conservation workers in other countries, or send their animal keepers abroad to contribute their knowledge and skills to those working in zoos and reserves, thereby helping to improve conditions and reintroductions all over the world.**

**E**

Zoos also play a key role in research. If we are to save wild species and restore and repair ecosystems we need to know about how key species live, act and react. **Being able to undertake research on animals in zoos where there is less risk and fewer variables means real changes can be effected on wild populations**. Finding out about, for example, the oestrus cycle of an animal of its breeding rate helps us manage wild populations. Procedures such as capturing and moving at-risk or dangerous individuals are bolstered by knowledge gained in zoos about doses for anaesthetics, and by experience in handling and transporting animals. This can make a real difference to conservation efforts and to the reduction of human-animal conflicts, and can provide a knowledge base for helping with the increasing threats of habitat destruction and other problems.

**F**

In conclusion, considering the many ongoing global threats to the environment, it is hard for me to see zoos as anything other than essential to the long-term survival of numerous species. They are vital not just in terms of protecting animals, but as a means of learning about them to aid those still in the wild, as well as educating and informing the general population about these animals and their world so that they can assist or at least accept the need to be more environmentally conscious. Without them, the world would be, and would increasingly become, a much poorer place.

**Questions 14-17**

Reading Passage 2 has six paragraphs, **A-F**.

Which paragraph contains the following information?

*Write the correct letter,****A-F****, in boxes****14-17****on your answer sheet.*

**14**    a reference to how quickly animal species can die out A

1 cái đề cập đến việc những loài động vật chết nhanh như thế nào

**15**    reasons why it is preferable to study animals in captivity rather than in the wild E

lí do tại sao nên nghiên cứu động vật trong nuôi nhốt hơn là trong tự nhiên

**16**    mention of two ways of about animals other than visiting them in zoos

Đề cập đến hai cách tìm hiểu về động vật ngoài việc thăm chúng trong sở thú D

**17**   reasons why animals in zoos may by healthier than those in the wild A

Lí do tại sao nên động vật trong sở thú thì khỏe mạnh hơn động vật ở tự nhiên

**Could urban engineers learn from dance?**

**A**

The way we travel around cities has a major impact on whether they are sustainable. Transportation is estimated to account for 30% of energy consumption in most of the world’s most developed nations, so lowering the need for energy-using vehicles is essential for decreasing the environmental impact of mobility. But as more and more people move to cities, it is important to think about other kinds of sustainable travel too. The ways we travel affect our physical and mental health, our social lives, our access to work and culture, and the air we breathe. Engineers are tasked with changing how we travel round cities through urban design, but the engineering industry still works on the assumptions that led to the creation of the energy-consuming transport systems we have now: the emphasis placed solely on efficiency, speed, and quantitative data. We need radical changes, to make it healthier, more enjoyable, and less environmentally damaging to travel around cities.

**B**

Dance might hold some of the answers. That is not to suggest everyone should dance their way to work, however healthy and happy it might make us, but rather that the techniques used by choreographers to experiment with and design movement in dance could provide engineers with tools to stimulate new ideas in city-making. Richard Sennett, an influential urbanist and sociologist who has transformed ideas about the way cities are made, argues that urban design has suffered from a separation between mind and body since the introduction of the architectural blueprint.

**C**

Whereas medieval builders improvised and adapted construction through their intimate knowledge of materials and personal experience of the conditions on a site, building designs are now conceived and stored in media technologies that detach the designer from the physical and social realities they are creating. While the design practices created by these new technologies are essential for managing the technical complexity of the modern city, they have the drawback of simplifying reality in the process.

**D**

To illustrate, Sennett discusses the Peachtree Center in Atlanta, USA, a development typical of the modernist approach to urban planning prevalent in the 1970s. Peachtree created a grid of streets and towers intended as a new pedestrian-friendly downtown for Atlanta. According to Sennett, this failed because its designers had invested too much faith in computer-aided design to tell them how it would operate. They failed to take into account that purpose-built street cafés could not operate in the hot sun without the protective awnings common in older buildings, and would need energy-consuming air conditioning instead, or that its giant car park would feel so unwelcoming that it would put people off getting out of their cars. What seems entirely predictable and controllable on screen has unexpected results when translated into reality.

**E**

The same is true in transport engineering, which uses models to predict and shape the way people move through the city. Again, these models are necessary, but they are built on specific world views in which certain forms of efficiency and safety are considered and other experience of the city ignored. Designs that seem logical in models appear counter-intuitive in the actual experience of their users. The guard rails that will be familiar to anyone who has attempted to cross a British road, for example, were an engineering solution to pedestrian safety based on models that prioritise the smooth flow of traffic. On wide major roads, they often guide pedestrians to specific crossing points and slow down their progress across the road by using staggered access points divide the crossing into two – one for each carriageway. In doing so they make crossings feel longer, introducing psychological barriers greatly impacting those that are the least mobile, and encouraging others to make dangerous crossings to get around the guard rails. These barriers don’t just make it harder to cross the road: they divide communities and decrease opportunities for healthy transport. As a result, many are now being removed, causing disruption, cost, and waste.

**F**

If their designers had had the tools to think with their bodies – like dancers – and imagine how these barriers would feel, there might have been a better solution. In order to bring about fundamental changes to the ways we use our cities, engineering will need to develop a richer understanding of why people move in certain ways, and how this movement affects them. Choreography may not seem an obvious choice for tackling this problem. Yet it shares with engineering the aim of designing patterns of movement within limitations of space. It is an art form developed almost entirely by trying out ideas with the body, and gaining instant feedback on how the results feel. Choreographers have deep understanding of the psychological, aesthetic, and physical implications of different ways of moving.

**G**

Observing the choreographer Wayne McGregor, cognitive scientist David Kirsh described how he ‘thinks with the body’, Kirsh argues that by using the body to simulate outcomes, McGregor is able to imagine solutions that would not be possible using purely abstract thought. This kind of physical knowledge is valued in many areas of expertise, but currently has no place in formal engineering design processes. A suggested method for transport engineers is to improvise design solutions and instant feedback about how they would work from their own experience of them, or model designs at full scale in the way choreographers experiment with groups of dancers. Above all, perhaps, they might learn to design for emotional as well as functional effects.

**Questions 1-6**

Reading Passage 1 has seven paragraphs, **A-G**.

Which paragraph contains the following information?

1. reference to an appealing way of using dance that the writer is not proposing B

đề cấp đến cách hấp dẫn của dung việc nhảy cái mà người viết không đề nghị

1. an example of a contrast between past and present approaches to building C

một ví dụ về sự tương phản giữa cách tiếp cận tòa nhà của quá khứ và hiện tại

1. mention of an objective of both dance and engineering F

đề cập về một đối tượng của khiêu vũ và kỹ thuật

1. reference to an unforeseen problem arising from ignoring the climate D

đề cập đến một vẫn đế không lường trước được phát sinh từ sự phớt lờ về biến đổi khí hậu

1. **5**   why some measures intended to help people are being reversed F

**Tại sao một số biện pháp sinh ra để giúp những người dân lại bị đảo ngược**

1. reference to how transport has an impact on human lives A

đề cập đến phương tiện có ảnh hưởng đến cuộc sống con người như thế nào