Advantages of Public Transport

A new study conducted for the World Bank by Murdoch University's Institute for Science and Technology Policy (ISTP) has demonstrated that public transport is more efficient than cars. The study compared the proportion of wealth poured into transport by thirty-seven cities around this world. This included both the public and private costs of building, maintaining and using a transport system.

The study found that the Western Australian city of Perth is a good example of a city with minimal public transport. As a result, 17% of its wealth went into transport costs. Some European and Asian cities, on the other hand, spent as little as 5%. Professor Peter Newman, ISTP Director pointed out that these more efficient cities were able to put the difference into attracting industry and jobs or creating a better place to live.

According to Professor Newman, the larger Australian city of Melbourne is a rather unusual city in this sort of comparison. He describes it as two cities: 'A European city surrounded by a car-dependent one'. Melbourne's large tram network has made car use in the inner city much lower, but the outer suburbs have the same car-based structure as most other Australian cities. The explosion in demand for accommodation in the inner suburbs of Melbourne suggests a recent change in many people's preferences as to where they live.

Newman says this is a new, broader way of considering public transport issues. In the past, the case for public transport has been made on the basis of environmental and social justice considerations rather than economics. Newman, however, believes the study demonstrates that' the auto-dependent city model is inefficient and grossly inadequate in economic as well as environmental terms'.

Bicycle use was not included in the study but Newman noted that the two most 'bicycle friendly cities considered - Amsterdam and Copenhagen - were very efficient, even though their public transport systems were 'reasonable but not special'.

It is common for supporters of road networks to reject the models of cities with good public transport by arguing that such systems would not work in their particular city. One objection is climate. Some people say their city could not make more use of public transport because it is either too hot or too cold. Newman rejects this, pointing out that public transport has been

successful in both Toronto and Singapore and, in fact, he has checked the use of cars against climate and found 'zero correlation'.

When it comes to other physical features, road lobbies are on stronger ground. For example, Newman accepts it would be hard for a city as hilly as Auckland to develop a really good rail network. However, he points out that both Hong Kong and Zurich have managed to make a success of their rail systems, heavy and light respectively, though there are few cities in the world as hilly.

Question 6-10

Do the following statements agree with the information given in Reading Passage 1?

In boxes 6-10 on your answer sheet, write

TRUE *if the statement agree with the information*

FALSE *if the statement contradicts the information*

NOT GIVEN *if there is no information on this in the passage*

6. The ISTP study examined public and private systems in every city of the world.

7. Efficient cities can improve the quality of life for their inhabitants.

8. An inner-city tram network is dangerous for car drivers.

9. In Melbourne, people prefer to live in the outer suburbs.

10. Cities with high levels of bicycle usage can be efficient even when public transport is only averagely good.

【答案】

6. FALSE 7. TRUE 8. NOT GIVEN 9. FALSE 10. TRUE

Numeration

One of the first great intellectual feats of a young child is learning how to talk, closely followed by learning how to count. From earliest childhood we are so bound up with our system of numeration that it is a feat of imagination to consider the problems faced by early humans who had not yet developed this facility. Careful consideration of our system of numeration leads to the conviction that, rather than being a facility that comes naturally to a person, it is one of the great and remarkable achievements of the human race.

It is impossible to learn the sequence of events that led to our developing the concept of number. Even the earliest of tribes had a system of numeration that, if not advanced, was sufficient for the tasks that they had to perform. Our ancestors had little use for actual numbers; instead their considerations would have been more of the kind Is this enough? rather than How many? When they were engaged in food gathering, for example. However, when early humans first began to reflect on the nature of things around them, they discovered that they needed an idea of number simply to keep their thoughts in order. As they began to settle, grow plants and herd animals, the need for a sophisticated number system became paramount. It will never be known how and when this numeration ability developed, but it is certain that numeration was well developed by the time humans had formed even semi-permanent settlements.

Evidence of early stages of arithmetic and numeration can be readily found. The indigenous peoples of Tasmania were only able to count one, two, many; those of South Africa counted one, two, two and one, two twos, two twos and one, and so on. But in real situations the number and words are often accompanied by gestures to help resolve any confusion. For example, when using the one, two, many type of system, the word many would mean, Look at my hands and see how many fingers I am showing you. This basic approach is limited in the range of numbers that it can express, but this range will generally suffice when dealing with the simpler aspects of human existence.

The lack of ability of some cultures to deal with large numbers is not really surprising. European languages, when traced back to their earlier version, are very poor in number words and expressions. The ancient Gothic word for ten, tachund, is used to express the number 100 as tachund. By the seventh century, the word teon had become interchangeable with the tachund or hund of the Anglo-Saxon language, and so 100 was denoted as

hund teontig, or ten times ten. The average person in the seventh century in Europe was not as familiar with numbers as we are today. In fact, to qualify as a witness in a court of law a man had to be able to count to nine!

Perhaps the most fundamental step in developing a sense of number is not the ability to count, but rather to see that a number is really an abstract idea instead of a simple attachment to a group of particular objects. It must have been within the grasp of the earliest humans to conceive that four birds are distinct from two birds; however, it is not an elementary step to associate the number 4, as connected with four birds, to the number 4, as connected with four rocks. Associating a number as one of the qualities of a specific object is a great hindrance to the development of a true number sense. When the number 4 can be registered in the mind as a specific word, independent of the object being referenced, the individual is ready to take the first step toward the development of a notational system for numbers and, from there, to arithmetic.

Traces of the very first stages in the development of numeration can be seen in several living languages today. The numeration system of the Tsimshian language in British Columbia contains seven distinct sets of words for numbers according to the class of the item being counted: for counting flat objects and animals, for round objects and time, for people, for long objects and trees, for canoes, for measures, and for counting when no particular object is being numerated. It seems that the last is a later development while the first six groups show the relics of an older system. This diversity of number names can also be found in some widely used languages such as Japanese.

Intermixed with the development of a number sense is the development of an ability to count. Counting is not directly related to the formation of a number concept because it is possible to count by matching the items being counted against a group of pebbles, grains of corn, or the counter's fingers. These aids would have been indispensable to very early people who would have found the process impossible without some form of mechanical aid. Such aids, while different, are still used even by the most educated in today's society due to their convenience. All counting ultimately involves reference to something other than the things being counted. At first it may have been grains or pebbles but now it is a memorised sequence of words that happen to be the names of the numbers.

Question 32-40

Do the following statements agree with the information given in Reading Passage 2?

In boxes 32-40 on your answer sheet, write

TRUE *if the statement agree with the information*

FALSE *if the statement contradicts the information*

NOT GIVEN *if there is no information on this in the passage*

32 For the earliest tribes, the concept of sufficiency was more important than the concept of quantity.

33 Indigenous Tasmanians used only four terms to indicate numbers of objects.

34 Some peoples with simple number systems use body language to prevent misunderstanding of expressions of number.

35 All cultures have been able to express large numbers clearly.

36 The word 'thousand' has Anglo-Saxon origins.

37 In general, people in seventh-century Europe had poor counting ability.

38 In the Tsimshian language, the number for long objects and canoes is expressed with the same word.

39 The Tsimshian language contains both older and newer systems of counting.

40 Early peoples found it easier to count by using their fingers rather than a group of pebbles.

【答案】

32. TRUE 33. FALSE 34. TRUE 35. FALSE 36. NOT GIVEN

37. TRUE 38. FALSE 39. TRUE 40. NOT GIVEN

作业 **1**：

Forests

Forests are one of the main elements of our natural heritage. The decline of Europe's forests over the last decade and a half has led to an increasing awareness and understanding of the serious imbalances which threaten them. European countries are becoming increasingly concerned by major threats to European forests, threats which know no frontiers other than those of geography or climate: air pollution, soil deterioration, the increasing number of forest fires and sometimes even the mismanagement of our woodland and forest heritage. There has been a growing awareness of the need for countries to get together to co-ordinate their policies. In December 1990, Strasbourg hosted the first Ministerial Conference on the protection of Europe's forests. The conference brought together 31 countries from both Western and Eastern Europe. The topics discussed included the co-ordinated study of the destruction of forests, as well as how to combat forest fires and the extension of European research programs on the forest ecosystem. The preparatory work for the conference had been undertaken at two meetings of experts. Their initial task was to decide which of the many forest problems of concern to Europe involved the largest number of countries and might be the subject of joint action. Those confined to particular geographical areas, such as countries bordering the Mediterranean or the Nordic countries therefore had to be discarded. However, this does not mean that in future they will be ignored.

As a whole, European countries see forests as performing a triple function: biological, economic and recreational. The first is to act as a 'green lung' for our planet; by means of photosynthesis, forests produce oxygen through the transformation of solar energy, thus fulfilling what for humans is the essential role of an immense, non-polluting power plant. At the same time, forests provide raw materials for human activities through their constantly renewed production of wood. Finally, they offer those condemned to spend five days a week in an urban environment an unrivalled area of freedom to unwind and take part in a range of leisure activities, such as hunting, riding and hiking. The economic importance of forests has been understood since the dawn of man - wood was the first fuel. The other aspects have been recognised only for a few centuries but they are becoming more and more important. Hence, there is a real

concern throughout Europe about the damage to the forest environment which threatens these three basic roles.

The myth of the 'natural' forest has survived, yet there are effectively no remaining 'primary' forests in Europe. All European forests are artificial, having been adapted and exploited by man for thousands of years. This means that a forest policy is vital, that it must transcend national frontiers and generations of people, and that it must allow for the inevitable changes that take place in the forests, in needs, and hence in policy. The Strasbourg conference was one of the first events on such a scale to reach this conclusion. A general declaration was made that 'a central place in any ecologically coherent forest policy must be given to continuity over time and to the possible effects of unforeseen events, to ensure that the full potential of these forests is maintained'.

That general declaration was accompanied by six detailed resolutions to assist national policy-making. The first proposes the extension and systematisation of surveillance sites to monitor forest decline. Forest decline is still poorly understood but leads to the loss of a high proportion of a tree's needles or leaves. The entire continent and the majority of species are now affected: between 30%and 50% of the tree population. The condition appears to result from the cumulative effect of a number of factors, with atmospheric pollutants the principal culprits. Compounds of nitrogen and sulphur dioxide should be particularly closely watched. However, their effects are probably accentuated by climatic factors, such as drought and hard winters, or soil imbalances such as soil acidification, which damages the roots. The second resolution concentrates on the need to preserve the genetic diversity of European forests. The aim is to reverse the decline in the number of tree species or at least to preserve the 'genetic material' of all of them. Although forest fires do not affect all of Europe to the same extent, the amount of damage caused the experts to propose as the third resolution that the Strasbourg conference consider the establishment of a European databank on the subject. All information used in the development of national preventative policies would become generally available. The subject of the fourth resolution discussed by the ministers was mountain forests. In Europe, it is undoubtedly the mountain ecosystem which has changed most rapidly and is most at risk. A thinly scattered permanent population and development of leisure activities, particularly skiing, have resulted in significant long-term changes to the local ecosystems. Proposed developments include a preferential research program on mountain forests. The fifth resolution relaunched the European research network on the physiology of trees,

called Eurosilva. Eurosilva should support joint European research on tree diseases and their physiological and biochemical aspects. Each country concerned could increase the number of scholarships and other financial support for doctoral theses and research projects in this area. Finally, the conference established the framework for a European research network on forest ecosystems. This would also involve harmonising activities in individual countries as well as identifying a number of priority research topics relating to the protection of forests. The Strasbourg conference's main concern was to provide for the future. This was the initial motivation, one now shared by all 31 participants representing 31 European countries. Their final text commits them to on-going discussion between government representatives with responsibility for forests.

Question 27-33

Do the following statements agree with the information given in Reading Passage 3?

In boxes 27-33 on your answer sheet, write

TRUE *if the statement agree with the information*

FALSE *if the statement contradicts the information*

NOT GIVEN *if there is no information on this in the passage*

27. Forest problems of Mediterranean countries are to be discussed at the next meeting of experts.

28. Problems in Nordic countries were excluded because they are outside the European Economic Community.

29. Forests are a renewable source of raw material.

30. The biological functions of forests were recognised only in the twentieth century.

31. Natural forests still exist in parts of Europe.

32. Forest policy should be limited by national boundaries.

33. The Strasbourg conference decided that a forest policy must allow for the possibility of change.

【答案】

27. NOT GIVEN 28. FALSE 29. TRUE

30. FALSE 31. FALSE 32. FALSE 33. TRUE

作业 2：

Book Review

The Happiness Industry: How the Government and Big Business Sold Us Well-Being

By William Davies

'Happiness is the ultimate goal because it is self-evidently good. If we are asked why happiness matters we can give no further external reason. It just obviously does matter.' This pronouncement by Richard Layard, an economist and advocate of 'positive psychology', summarises the beliefs of many people today. For Layard and others like him, it is obvious that the purpose of government is to promote a state of collective well-being. The only question is how to achieve it, and here positive psychology - a supposed science that not only identifies what makes people happy but also allows their happiness to be measured - can show the way. Equipped with this science, they say, governments can secure happiness in society in a way they never could in the past.

It is an astonishingly crude and simple-minded way of thinking, and for that very reason increasingly popular. Those who think in this way are oblivious to the vast philosophical literature in which the meaning and value of happiness have been explored and questioned, and write as if nothing of any importance had been thought on the subject until it came to their attention. It was the philosopher Jeremy Bentham (1748—1832) who was more than anyone else responsible for the development of this way of thinking. For Bentham it was obvious that the human good consists of pleasure and the absence of pain. The Greek philosopher Aristotle may have identified happiness with self-realisation in the 4th century BC, and thinkers throughout the ages may have struggled to reconcile the pursuit of

happiness with other human values, but for Bentham all this was mere metaphysics or fiction. Without knowing anything much of him or the school of moral theory he established - since they are by education and intellectual conviction illiterate in the history of ideas - our advocates of positive psychology follow in his tracks in rejecting as outmoded and irrelevant pretty much the entirety of ethical reflection on human happiness to date.

But as William Davies notes in his recent book The Happiness Industry, the view that happiness is the only self-evident good is actually a way of limiting moral inquiry. One of the virtues of this rich, lucid and arresting book is that it places the current cult of happiness in a well-defined historical framework. Rightly, Davies begins his story with Bentham, noting that he was far more than a philosopher. Davies writes, 'Bentham's activities were those which we might now associate with a public sector management consultant'. In the 1790s, he wrote to the Home Office suggesting that the departments of government be linked together through a set of 'conversation tubes，，and to the Bank of England with a design for a printing device that could produce unforgeable banknotes. He drew up plans for a 'frigidarium' to keep provisions such as meat, fish, fruit and vegetables fresh. His celebrated design for a prison to be known as a 'Panopticon，in which prisoners would be kept in solitary confinement while being visible at all times to the guards, was very nearly adopted. (Surprisingly, Davies does not discuss the fact that Bentham meant his Panopticon not just as a model prison but also as an instrument of control that could be applied to schools and factories.)

Bentham was also a pioneer of the 'science of happiness'. If happiness is to be regarded as a science, it has to be measured, and Bentham

suggested two ways in which this might be done. Viewing happiness as a complex of pleasurable sensations, he suggested that it might be quantified by measuring the human pulse rate. Alternatively, money could be used as the standard for quantification: if two different goods have the same price, it can be claimed that they produce the same quantity of pleasure in the consumer. Bentham was more attracted by the latter measure. By associating money so closely to inner experience, Davies writes, Bentham 4set the stage for the entangling of psychological research and capitalism that would shape the business practices of the twentieth century'.

The Happiness Industry describes how the project of a science of happiness has become integral to capitalism. We learn much that is interesting about how economic problems are being redefined and treated as psychological maladies. In addition, Davies shows how the belief that inner states of pleasure and displeasure can be objectively measured has informed management studies and advertising. The tendency of thinkers such as J B Watson, the founder of behaviourism*, was that human beings could be shaped, or manipulated, by policymakers and managers. Watson had no factual basis for his view of human action. When he became president of the American Psychological Association in 1915, he 'had never even studied a single human being': his research had been confined to experiments on white rats. Yet Watson's reductive model is now widely applied, with 'behaviour change' becoming the goal of governments: in Britain, a 'Behaviour Insights Team' has been established by the government to study how people can be encouraged, at minimum cost to the public purse, to live in what are considered to be socially desirable ways.

Modern industrial societies appear to need the possibility of ever-increasing happiness to motivate them in their labours. But whatever its intellectual pedigree, the idea that governments should be responsible for promoting happiness is always a threat to human freedom.

Question 35-40

Do the following statements agree with the information given in Reading Passage 3?

In boxes 35-40 on your answer sheet, write

YES	*if the statement agree with the claims of the writer*
NO	*if the statement contradicts the claims of the writer*
NOT GIVEN	*if it is impossible to say what the writer thinks about this*

35. One strength of The Happiness Industry is its discussion of the relationship between psychology and economics.

36. It is more difficult to measure some emotions than others.

37. Watson's ideas on behaviourism were supported by research on humans he carried out before 1915.

38. Watson's ideas have been most influential on governments outside America.

39. The need for happiness is linked to industrialization.

40. A main aim of government should be to increase the happiness of the population.

【答案】

35 YES　36 NOT GIVEN　37 NO　38 NOT GIVEN 39 YES　40 NO

注：以上文章均选自《剑桥雅思系列》，仅供学习使用。