IELTS Academic Reading Sample 121 - Tidal Power

Tidal Power

Undersea turbines which produce electricity from the tides are set to become an important source of renewable energy for Dritain. lt is still too early to predict the extent of the impact they may have. but all the signs are that they will play a significant role in the future.

A Operating on the same principle as wind turbines, the power in sea turbines comes from tidal currents whic h turn blades similar to ships' propellers, but. unlike wind, the tides are predictable and the power input is constant. The technology raises the prospect of Britain becoming self-sufficient in renewable energy and drastically reducing its carbon dioxide emissions. lf tide, wind and wave power are all developed. Britain would be able to close gas, coal and nuclear power plants and export renewable power to other parts of Europe. Unlike wind power which Britain originally developed and than abandoned for 20 years allowing the Dutch to make it a major industry. undersea turbines could become a big export earner to island nations such as Japan and New Zealand.

B Tidal sites have already been identified that will produce one sixth or more of the UK's power - and at prices competitive with modern gas turbines and undercutting those of the already ailing nuclear industry. One site alone, the Pendand Firth. between Orkney and mainland Scotland, could produce 10% of the country's electricity with banks of turbines under the sea, and another at Alderney in the Channel islands three times the 1.200 megawatts of Britain's largest and newest nuclear plant, Sizewell B, in Suffolk. Other sites identified include the Bristol Channel and the west coast of Scotland, particularly the channel between Campbeltown and Northern Ireland.

C Work on designs for the new turbine blades and sites are well advanced at the University of Southampton's sustainable energy research group. The first station is expected to be installed off Lynmouth in Devon shortly to test the technology in a venture jointly funded by the department of Trade and Industry and the European Union. AbuBakr Bahaj, in charge of the Southampton research. said: The prospects for energy from tidal currents are far better than from wind because the flows of water are predictable and constant. The technology for dealing with the hostile saline environment under the sea has been developed in the North Sea oil industry and much is already known about turbine blade design, because of wind power and ship propellers. There are a few technical difficulties, but I believe in the next live to ten years we will be installing commercial marine turbine farms.' Southampton has been awarded £2'l5.U.`D over three years to develop the turbines and is working with Marine Current Turbines. a subsidiary of IT power; on the Lynmouth project. EU research has now identified 1GB potential sites for tidal powen BG% round the coasts ol Britain. The best sites are between islands or around heavily indented coasts where there are strong tidal currents.

D A marine turbine blade needs to be only one third of the size of a wind generator to produce three times as much power. The blades will be about 20 metres in diameter so around 30 metres of water is required. Unlike wind power there are unlikely to be environmental objections. Fish and other creatures are thought unlikely to be at risk from the relatively slow turning blades. Each turbine will be mounted on a tower which will connect to the national power supply grid via underwater cables. The towers will stick out of the water and be lit. to warn shipping, and also be designed to be lifted out of the water for maintenance and to clean seaweed from the blades.

E Dr Baha has done most work on the Alderrney site, where there are powerful currents. The single undersea turbine farm would produce far more power than needed for the Channel Islands and most would be fed into the French Grid and be re-imported into Britain via the cable under the Channel.

F One technical difficulty is cavitations,. where low pressure behind a turning blade causes air bubbles. These can cause vibration and damage the blades of the turbines. Dr Bahaj said: 'We have to lest a number of blade types to avoid this happening or at least make sure it does not damage the turbines or reduce performance. Another slight concern is submerged debris floating into the blades. So far we do not know how much of a problem it might be. We will have to make the turbines robust because the sea is a hostile environment. but all the signs that we can do it are good.

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.

NB You may use any letter more than once.

14 the location of the first test site

15 a way of bringing the power produced on one site back into Britain

16 a reference to a previous attempt by Britain to find an alternative source of energy

17 mention of the possibility of applying technology from another industry

Questions 18-22

CHOOSE FIVE Letters A-J

Write the correct letters in boxes 18-22 on your answer street.

Which FIVE of the following claims about tidal power are made by the writer?

A It is a more reliable source of energy than wind power.

B It would replace all other forms of energy in Britain.

C Its introduction has come as a result of public pressure.

D It would cut down on air pollution.

E It could contribute to the closure of many existing power stations In Britain.

F It could be a means of increasing national income.

G It could face a lot of resistance from other fuel industries.

H It could be sold more cheaply than any other type of fuel.

I It could compensate for the shortage of inland sites for energy production.

J It is best produced in the vicinity of coastlines with particular features.

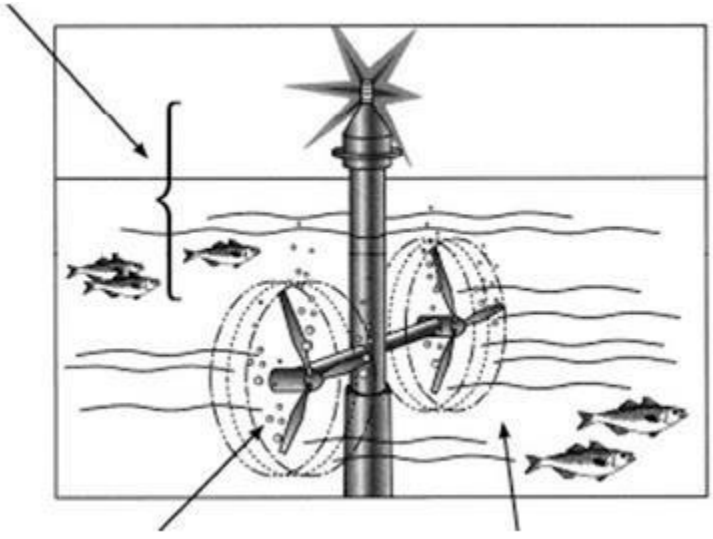
Questions 23-26

Label the diagram below

Choose NO MORE THAN TWO WORDS from the passage for each answer

Write your answers in boxes 23-26 on your answer sheet,

An Undersea Turbine



Whole tower can be raised for **23.....** and the extraction of seaweed from the blades. Sea life not in danger due to the fact that blades are comparatively **24**.....

Air bubble result from the **25**....., behind blades. This is known as **26**.....

Answer:

14.C

15.E

16.A

17.C

18.A

19.D

20.E

21.F

22.J

23. maintenance

24. slow (turning)

25. low pressure

26. cavitation

IELTS Academic Reading Sample 122 - Attitude of Language

You should spend about 20 minutes on Questions **1-13**, which are based on Reading Passage 122 below:

Attitude of Language

It is not easy to be systematic and objective about language study. Popular linguistic debate regularly deteriorates into invective and polemic. Language belongs to everyone, so most people feel they have a right to hold an opinion about it And when opinions differ, emotions can run high. Arguments can start as easily over minor points of usage as over major policies of linguistic education.

Language, more oven is a very public behavior so it is easy for different usages to be noted and criticized No part of society or social behavior is exempt: linguistic factors influence how we judge personality, intelligence, social status, educational standards, job aptitude, and many other areas of identity and social survival. As a result, it is easy to hurt, and to be hurt, when language use is unfeelingly attacked.

ln its most general sense. prescriptivism is the view that one variety of language has an inherently higher value than others, and that this ought to be imposed on the whole of the speech community. The view is propounded especially in relation to grammar and vocabulary, and frequently with reference to pronunciation. The variety which ls favoured, in this account, ls usually a version of the ‘standard’ written language, especially as encountered in literature, or in the formal spoken language which most closely reflects this style. Adherents to this variety are said to speak or write ‘correctly'; deviations from lt are said to be 'incorrect`.

All the main languages have been studied prescriptlvely, especially in the 18th century approach to the writing of grammars and dictionaries. The aims of these early grammarians were threefold: [a) they wanted to codify the principles of their languages, to show that there was a system beneath the apparent chaos of usage. (b] they wanted a means of settling disputes over usage, and (c] they wanted to point out what they felt to be common errors, in order to ‘improve' the language. The authoritarian nature of the approach is best characterized by its reliance on 'rules' of grammar Some usages are prescribed; to be learnt and followed accurately; others are proscribed to be avoided. ln this early period, there were no half-measures: usage was either right or wrong. and it was the task of the grammarian not simply to record alliterative but to pronounce judgement upon them.

These attitudes are still with us, and they motivate a widespread concern that linguistic standards should be maintained. Nevertheless, there is an alternative point of view that is concerned less with standards than with the facts of linguistic usage. This approach ls summarized in the statement that it is the task of the grammarian

to describe not prescribe to record the facts of linguistic diversity, and not to attempt the impossible tasks evaluating language variation or halting language change. In the second half of the 18th century, we already find advocates of this view, such as Joseph Priestley, whose Rudiments of English Grammar (1761) insists that ‘the custom of speaking is the original and only just standard of any language. `Linguistic issues, it is argued, cannot be solved by logic and legislation. And this view has become the tenet of the modem linguistic approach to grammatical analysis.

In our own time, the opposition between ‘descriptivists' and 'prescriptivists' has often become extreme. with both sides painting unreal pictures of the other. Descriptive grammarians have been presented as people who do not care about standards, because of the way they see all forms of usage as equally valid. Prescriptive grammarians have been presented as blind adherents to a historical tradition. The opposition has even been presented in quasi-political terms - of radical liberalism vs elitist conservatism.

Questions 1-8

Do the following statements agree with the claims of the writer in Reading Passage 54?
In boxes **1-8** in your answer sheet, write:

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

1 There are understandable reasons why arguments occur about language.
2 People feel more strongly about language education than about small differences in language usage.
3 Our assessment of a persons intelligence is affected by the way he or she uses language.
4 Prescriptive grammar books cost a lot of money to buy in the 18th century.
5 Prescriptivism still exists today.
6 According tc descriptivist it is pointless to try to stop language change.
7 Descriptivism only appeared alter the 18th century.
8 Both descriptivists and prescriptivists have been misrepresented.

Questions 9-12

Complete the summary using the list of words, A-l, below
Write the correct letter; A-l, in boxes 9-12 on your answer sheet.

The language debate

According to **9.....** , there is only one correct form of language. Linguists who take this approach to language place great importance on grammatical **10** ..... Conversely, the view of **11.....**, such as Joseph Priestley, is that grammar should be based on **12** ..... .

Questions 13

Choose the correct letter A. B, C or D.

Write the correct letter in box 13 on your answer sheet.

What is the writers purpose in Reading Passage?

A to argue in favour of a particular approach to writing dictionaries and grammar books

B to present a historical account of differing views of language

C to describe the differences between spoken and written language

D to show how a certain view of language has been discredited

Answer:

1. YES
2. NO
3. YES
4. NOT GIVEN
5. YES
6. YES
7. NO
8. YES
9. H
10. F
11. A
12. C
13. B

IELTS Academic Reading Sample 123 - Venus in Transit

Venus in Transit

June 2004 saw the first passage., known as a 'transit` of the planet Venus across the face of the Sun in 122 years. Transits have helped shape our view of the whole Universe, as Heather Cooper and Nigel Henbest explain

A

On 8 June 2004, more than half the population of the world were treated to a rare astronomical event. For over six hours, the planet Venus steadily inched its way over the surface of the Sun. This “transit` of Venus was the first since 6 December l882. On that occasion, the American astronomer Professor Simon Newcomb led a party to South Africa to observe the event. They were based at a girls' school, where - if is alleged – the combined forces of three schoolmistresses outperformed the professionals with the accuracy of their observations.

B

For centuries, transits of Venus have drawn explorers and astronomers alike to the four corners of the globe. And you can put it all down to the extraordinary polymath Edmond Halley. In November 1677, Halley observed a transit of the innermost planet Mercury, from the desolate island of St Helena in the South Pacific. .He realized that from different latitudes, the passage of the planet across the Suns disc would appear to differ. By timing the transit from two widely-separated locations, teams of astronomers could calculate the parallax angle - the apparent difference in position of an astronomical body due to a difference in the observers position. Calculating this angle would allow astronomers to measure what was then the ultimate goal; the distance of the Earth from the Sun. This distance is known as the

He was thwarted by the fact that the British were besieging his observation site at Pondicherry in India. Fleeing on a French warship crossing the Indian Ocean, Le Gentil saw a wonderful transit - but the ship`s pitching and rolling ruled out any attempt at making accurate observations. Undaunted, he remained south of the equator, keeping himself busy by studying the islands of Mauritius and Madagascar before setting off to observe the next transit in the Philippines. Ironically after travelling nearly 50,000 kilometres, his view was clouded out at the last moment, a very dispiriting experience.

E

While the early transit timings were as precise as instruments would allow the measurements were dogged by the 'black drop' effect. When Venus begins to cross the Sun's disc, it looks smeared not circular - which makes it difficult to establish timings. This is due to diffraction of light. The second problem is that Venus exhibits a halo of light when it is seen just outside the Sun's disc. While this showed astronomers that Venus was surrounded by a thick layer of gases refracting sunlight around it, both effects made it impossible to obtain accurate timings.

F

But astronomers labored hard to analyze the results of these expeditions to observe Venus transits. Jonathan Franz Encke, Director of the Belin Observatory, finally

'astronomical unit` or AU.

C

Halley was aware that the AU was one of the most fundamental of all astronomical measurements. Johannes Kepler, in the early 17*h century, had shown that the distances of the planets from the Sun governed their orbital speeds, which were easily measurable. But no-one had found a way to calculate accurate distances to the planets from the Earth. The goal was to measure the AU; then, knowing the orbital speeds of all the other planets round the Sun, the scale of the Solar System would fall into place. However, Halley realized that Mercury was so far away that its parallax angle would be very difficult to determine. As Venus was closer to the Earth, its parallax angle would be larger and Halley worked out that by using Venus it would be possible to measure the Sun`s distance to 1 part in 500. But there was as problem: transits of Venus, unlike those of Mercury; are rare. occurring in pairs roughly eight years apart every hundred or so years. Nevertheless, he accurately predicted that Venus would cross the face of the Sun in both 1761 and 1769 - though he didn`t survive to see either.

D

Inspired by Halley's suggestion of a way to pin down the scale of the Solar System, teams of British and French astronomers set out on expeditions to places as diverse as India and Siberia. But things weren’t helped by Britain and France being at war. The person who deserves most sympathy is the French astronomer Guillaume Le Gentil.

determined a value for the AU based on all these parallax measurements: 153340,000 km. Reasonably accurate for the time, that is quite close to todays value of 149,597,870 km, determined by radar, which has now superseded transits and all other methods in accuracy. The AU is a cosmic measuring rod, and the basis of how we scale the Universe today The parallax principle can be extended to measure the distances to the stars. If we look at a star in January - when Earth is at one point in its orbit - it will seem to be in a different position from where it appears six months later. Knowing the width of Earth`s orbit, the parallax shift lets astronomers calculate the distance.

G June 2004’s transit of Venus was thus more of an astronomical spectacle than a scientifically important event. But such transits have paved the way for what might prove to be one of the most vital breakthroughs in the cosmos - detecting Earth-sized planets orbiting other stars.

Questions 14-17

Reading Passage 2 has seven paragraphs, **A-G**.

Which paragraph contains the following information?

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

14. examples of different ways in which the parallax principle has been applied
15. a description of an event which prevented a transit observation
16. a statement about potential future discoveries leading on from transit observations
17. a description of physical states connected with Venus which early astronomical instruments failed to overcome

Questions 18-21

Look at the following statements (Questions 18-21) and the list of people below

Match each statement with the correct person, A, B, C or D.

Write the correct letter A, B, C or D. in boxes 18-21 on your answer sheet.

18. He calculated the distance of the Sun from the Earth based on observations of Venus with a fair degree of accuracy.
19. He understood that the distance of the Sun from the Earth could be worked out by comparing observations of a transit.
20. He realized that the time taken by a planet to go round the Sun depends on its distance from the Sun.
21. He witnessed a Venus transit but was unable to make any calculations.

List of People

A Edmond Halley

B Johannes Kepler

C Guillaume Le Gentil

D Johann Franz Encke

Questions 22-26

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

Write answers in boxes **22-26** on your answer sheet. write

TRUE it the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

22. Halley observed one transit of the planet Venus.

23. Le Gentil managed to observe a second Venus transit.

24. The shape of Venus appears distorted when it starts to pass in front of the Sun.

25. Early astronomers suspected that the atmosphere on Venus was toxic.

26. The parallax principle allows astronomers to work out how far away distant stars are from the Earth.

Answer:

14. F
15. D
16. G
17. E
18. D
19. A
20. B
21. C
22. FALSE
23. FALSE
24. TRUE
25. NOT GIVEN
26. TRUE

IELTS Academic Reading Sample 124

READING PASSAGE SAMPLE- 124

A

Hearing impairment or other auditory function deficit in young children can have a major impact on their development of speech and communication, resulting in a detrimental effect on their ability to learn at school. This is likely to have major consequences for the individual and the population as a whole. The New Zealand Ministry of Health has found from research carried out over two decades that 6-10% of children in that country are affected by hearing loss.

B A preliminary study in New Zealand has shown that classroom noise presents a major concern for teachers and pupils. Modem treading practices, the organization of desks in the classroom. poor classroom acoustics, and mechanical means of ventilation such as air-conditioning units all contribute to the number of children unable to comprehend the teachers voice. Education researchers Nelson and Soli have also suggested that recent trends in learning often involve collaborative interaction of multiple minds and tools as much as individual possession of information. This all amounts to heightened activity and noise levels, which have the potential to be particularly serious for children experiencing auditory function deficit. Noise in classrooms can only exacerbate their difficulty in comprehending and processing verbal communication with other children and instructions from the teacher.

C Children with auditory function deficit are potentially failing to learn to their maximum potential because of noise levels generated in classrooms. The effects of noise on the ability

noise generated by machinery painful and distressing. This is difficult to scientifically quantify as such extra-sensory stimuli vary greatly from one autistic individual to another. But a child who finds any type of noise in their classroom or learning space intrusive is likely to be adversely affected in their ability to process information.

F The attention deficit disorders are indicative of neurological and genetic disorders and are characterized by difficulties with sustaining attention, effort and persistence, organization skills and disinhibition. Children experiencing these disorders find it difficult to screen out unimportant information, and focus on everything in the environment rather than attending to a single activity. Background noise in the classroom becomes a major distraction, which can affect their ability to concentrate.

G Children experiencing an auditory function deficit can often End speech and communication very difficult to isolate and process when set against high levels of background noise. These levels come from outside activities that penetrate the classroom structure, from teaching activities, and other noise generated inside, which can be exacerbated by room reverberation. Strategies are needed to obtain the optimum classroom construction and perhaps a change in classroom culture and methods of teaching. In particular, the effects of noisy classrooms and activities on those experiencing disabilities in the form of auditory function deficit need thorough investigation. It is probable that many undiagnosed children exist in the education system with 'invisible' disabilities. Their needs are less likely to be met than those of children with known disabilities

of children to team effectively in typical classroom environments are now the subject of increasing concern. The International Institute of Noise Control Engineering(I-INCE), on the advice of the World Health Organization, has established an international working party, which includes New Zealand, to evaluate noise and reverberation control for school rooms.

D While the detrimental effects of noise in classroom situations are not limited to children experiencing disability, those with a disability that affects their processing of speech and verbal communication could be extremely vulnerable. The auditory function deficits in question include hearing impairment, autistic spectrum disorders (ASD) and attention deficit disorders MDD/ADHD).

E Autism is considered a neurological and genetic life-long disorder that causes discrepancies in the way information is processed. This disorder is characterized by interlinking problems with social imaginations, social communication and social interaction. According to Jenzen, this affects the ability to understand and relate in typical ways to people, understand events and objects in the environment, and understand or respond to sensory stimuli. Autism does not allow learning or thinking in the same ways as in children who are developing normally.

Autistic spectrum disorders often result in major difficulties in comprehending verbal information and speech processing. Those experiencing these disorders often find sounds such as crowd noise and the

H The New Zealand Government has developed a New Zealand Disability Strategy and has embarked on a wide-ranging consultation process. The strategy recognizes that people experiencing disability face significant barriers in achieving a full quality of life in areas such as attitude, education, employment and access to services. Objective 3 of the New Zealand Disability Strategy is to 'Provide the Best Education for Disabled People' by improving education so that all children, youth learners and adult learners will have equal opportunities to learn and develop within their already existing local school. For a successful education, the learning environment is vitally significant, so any effort to improve this is likely to be of great benefit to all children, but especially to those with auditory function disabilities.

I A number of countries are already in the process of formulating their own standards for the control and reduction of classroom noise. New Zealand will probably follow their example. The literature to date on noise in school rooms appears to focus on the effects on schoolchildren in general, their teachers and the hearing impaired. Only limited attention appears to have been given to those students experiencing the other disabilities involving auditory function deficit. It is imperative that the needs of these children are taken into account in the setting of appropriate international standards to be promulgated in future.

Questions 1-6

Reading Passage 52 has nine sections, ***A-I.***

Which section contains the following information?

Write the correct letter ***A-I,*** *in boxes* ***1-6*** *on your answer sheet.*

1. an account of a national policy initiative
2. a description of a global team effort
3. a hypothesis as to one reason behind the growth in classroom noise
4. a demand for suitable worldwide regulations
5. a list of medical conditions which place some children more at risk from noise than others
6. the estimated proportion of children in New Zealand with auditory problems.

Questions 7-10

Answer the questions below.

Choose **NO MORE THAN TWO WORDS AND/OR A NUMBER** from the passage for each answer.

Write your answers in boxes 7-10 on your answer sheet.

7. For what period of time has hearing loss in schoolchildren been studied in New Zealand?
8. In addition to machinery noise, what other type of noise can upset children with autism?
9. What term is used to describe the hearing problems of schoolchildren which have not been diagnosed?
10. What part of the New Zealand Disability Strategy aims to give schoolchildren equal opportunity?

Questions 11-12

Choose **TWO** letters, **A-E**

Write the correct letters in boxes 11 and 12 on your answer sheet**.** The list below includes factors contributing to classroom noise.

Which **TWO** are mentioned by the writer of the passage?

A current teaching methods

B echoing corridors

C cooling systems

D large class sizes

E loud-voiced teachers

F playground games

Questions 13

*Choose the correct letter **A, B. C** or **D.***

Write the correct letter in box 13 on your answer sheet.

What is the writer's overall purpose in writing this article?

A to compare different methods oi dealing with auditory problems

B to provide solutions for overly noisy learning environments

C to increase awareness of the situation oi children with auditory problems

D to promote New Zealand as a model for other countries to follow

Answer:

1. H 2. C 3. B 4. I 5. D 6. A 7. two decades 8. crowd (noise) 9. invisible (disability/ disabilities) 10. Objective 3 11. & 12 A C (In Either Order) 13. C