**Test 4\_12**

**Reading Passage 1**

**Polluting Sounds: In Search of Silence**

In a self-imposed solitary confinement, 22-year old Tom Wonnacott, a Princeton graduate student, spent four days lying in a lightless, sound-proofed isolation chamber.  Unable to see or hear, he also wore thick gloves to restrict his sense of touch.  Wonnacott volunteered to undergo this experience to help US-based psychologists find out what happens to people isolated from the outside world and deprived of the normal use of their senses.  While over a longer period of time such extremes of silence in conjunction with sensory deprivation are harmful, there are many today who are in search of quieter areas.

An over-abundance of noise has always been a significant environmental issue for man. In ancient Rome, rules existed to ensure that the noise emitted from the large iron wheels of wagons which rolled over the stones on the pavements and caused disruption of sleep and annoyance was minimised by allowing people to travel only during certain times.  The same rules existed in Medieval Europe.  To ensure inhabitants were given the best chance at a peaceful night’s sleep, in some cities, horse-drawn carriages and horseback riding were not allowed at night time.  However when today’s noise problems are compared with the noise pollution problems of the past they are almost incomparable.

An immense number of vehicles of various shapes and sizes are regularly driven around and through most of the world’s cities and countrysides.  Loud, large diesel engines power the enormous trucks that roll around highways day and night.  Aircraft and trains add to the environmental noise scenario.  In industry, machinery emits high noise levels and amusement parks and pleasure vehicles distract leisure time and relaxation.  One hundred years ago, environmental experts predicted that in the 21st century there would be a shortage of water and silence.  They were correct.  Silence is scarce.  More and more silence is drowned out by sound.

A lack of knowledge about the effects of noise pollution on humans in comparison to other pollutants has been lacking as an area of research.  Although it has been generally regarded that noise pollution is primarily a ‘luxury’ problem - for those developed countries able to afford the purchase price of large quantities of loud, noisy machinery - it is actually a fact that due to bad planning and poor construction of buildings, noise exposure is often higher in developing countries.  This means that regardless of the economic status of a particular country, the effects of noise are just as widespread and the long-term consequences for health the same.  Therefore, practical action plans based upon proper scientific evaluation of available data on the effects of noise exposure, with the express purpose of limiting and controlling the exposure of people to environmental noise is a most worthwhile undertaking.

It has been well established that exposure to loud noises for extended periods of time causes trauma to the inner ear and often results in irreversible hearing loss.  When it initially receives sound, the human ear actually amplifies it by a factor of 20.  In 1965, in a remote part of Ghana, scientists went about studying the impact of ‘insignificant’ exposure to industrial noise and transportation.  In tandem, the Ghanese group was compared with a control group in industrial USA.  A number of startling conclusions were drawn from the experiments.  For example, both locations revealed that aging is an almost insignificant cause of hearing loss.  Instead it was shown that chronic exposure to moderately high levels of environmental noise led to hearing loss.  Cardiovascular complaints also emerged from among those with prolonged exposure to industrial noise above 70 dBA.  In fact, over a single eight-hour period, it was shown that participants experienced a rise in blood pressure thus indicating noise pollution contributes to human stress levels.  If this was not alarming enough, also noted was an increase in the incidence of heart disease.

The findings from various noise studies had the effect of changing the perspectives of many of the world’s governments.  Whereas noise had been considered a ‘nuisance’ rather than an environmental problem, laws were made to protect citizens against it.  In the United States and Ghana, federal standards for highway and aircraft noise were introduced.  State governments created noise regulations pertaining to building codes, urban planning and road construction.  In Canada and the EU, noise laws are the domain of local governments.  Activities in those countries deemed mandatory such as the collection of rubbish or some medical services are the only allowed exceptions to what otherwise are quiet local neighbourhood zones.

Typically, quiet times in neighbourhoods are between 6am and 10pm with restricted higher decibel levels after these hours.  What happens if these quite times are violated?  Unfortunately, the enforcement of noise laws has proven problematic for many local governments with enforcement agencies often not following up on noise complaints.  For persistent nuisances, individuals may seek compensation through the local courts and in some cities, police are authorised to impound such things as stereos and cars.  These are extreme cases; most issues are handled by negotiation between the emitter and the receiver.

**Questions 1-7**

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

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

In boxes 1-7 on your answer sheet, write

|  |  |  |
| --- | --- | --- |
|   | **TRUE** | if the statement agrees with the information |
|   | **FALSE** | if the statement contradicts the information |
|   | **NOT GIVEN** | if there is no information on this |

**1** Noise pollution is a relatively new pollution.

**2** Experts forecasted that water and noise pollution would be major future problems.
**3** Noise pollution seems to be a bigger problem in richer, developed countries.
**4** Noises that enter the human ear are actually heard louder than they really are.
**5**          There is a strong relationship between hearing loss and age.
**6** Loud noise exposure studies have caused government changes.
**7** In Canada, police monitor the level of noise in local neighbourhoods.

**Questions 8 - 9**

Choose **TWO** letters, **A-G**.

The list of problems below can be caused by exposure to high noise levels.

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

|  |  |
| --- | --- |
| **A** | increased ear sensitivity |
| **B** | reduced reaction time |
| **C** | increased aging of the body   |
| **D** | heart disease   |
| **E** | stomach cancer |
| **F** | sleep apnea |
| **G** | increased blood pressure |

**Questions 10 - 13**

Classify the following features as applying to

|  |  |
| --- | --- |
| **A** | people from the **USA** |
| **B** | people from **Ghana** |
| **C** | both people from the **USA** and **Ghana** |

 Write the correct letter **A**, **B** or **C**, in boxes 6-10 on your answer sheet.

**10** individuals participated in a noise study
**11** conducted a silence study
**12** introduced air traffic regulations
**13** the relationship between industrial noise and blood pressure

**Reading Passage 2**

**Unearthing Jórvík**

**A** From 1976 to 1981 in what is now known as the city of York in North Yorkshire, England, an archaeological dig was conducted in and around the street of Coppergate.  This excavation played a most significant part in bringing to life the Viking kingdom of Jórvík.

**B** Because most artifacts are made of materials which are readily destroyed by fire, coming across an abundance of them after so many years is indeed a rare thing.  The five-year excavation in and around the street of Coppergate by the York Archaeological Trust, managed to uncover some breathtakingly well-preserved remains of Jórvík.  Due to the unusual abundance of dense, anoxic wet clay, Jórvík's mostly timber buildings, pits and wells, work areas and animal pens were remarkably very much intact.

**C** Most commonly, household items from long ago were made of organic material and therefore tended to decompose completely in oxygen-rich soil.  However, the complete lack of oxygen in the earth meant that a decay bacterium was unable to break down the embedded Viking objects.  An oxygen-free organic ‘cocoon’ comprising a mix of plant debris, including remains of plants, wood chips, twigs, straw used for bedding and thatch used in building, created an environment which enabled archaeologists to uncover an abundance of relics left over from a period dating back to the 10th century.  Excavations of up to nine meters comprising numerous layers of deposits uncovered a number of household articles such as pottery and eating utensils as well as items made of wood and leather – all remarkably well-preserved.  Many beautifully-decorated combs were among the most common items found at Coppergate.  Combs at various stages of production, from sawn off-cuts of antler to the finished product, were all uncovered at the site.

**D** The unusual number of combs found in the area indicated to archaeologists that there had been significant head lice infestations during the period.  Head lice continue to be a menace in many parts of the world today and, excavations in the area revealed that such was the case for the residents of Jórvík.  Though probably not too harmful to their health, also uncovered in the stomachs of many of the residents were parasitic worms, some of them up to a third of a metre long.  Given the close proximity of household waste (food scraps, shells, bones) to houses, archaeologists deduced that sanitation in the area was generally poor.  This poor sanitation would have impacted upon life expectancy with records indicating that most people did not live beyond the age of 50.

**E** Archaeologists are concerned with studying the environment of a past civilisation and, like a detective, try to reconstruct a picture of what life in a particular area must have been like.  Remains from the city of Jórvík told archaeologists a story about life in the Viking kingdom.  A cap made of silk which was uncovered indicated a connection with the Byzantine Empire and beyond.  Coins bearing inscriptions from the Uzbekistan city of Samarkand and a cowrie shell indicated contact with the Persian Gulf or Red Sea tus showing how far some of the inhabitants must have traveled.  Also uncovered side-by-side were Christian and pagan objects probably indicating that Christians were probably not in power at the time.

**F** It was clear from the wide range of everyday items uncovered that under the Vikings, Jórvík excelled as an important manufacturing center.  The name ‘Coppergate’ means ‘the street of cup-makers’ in the old Norse language and further illustrated the manufacturing nature of the area as hundreds of wooden cores - the waste or off-cuts from wooden bowls and cups - were found in the area.  This evidence points to a well-developed wood-working industry with the mass production of household wooden items.  Another excavated area uncovered yet another manufacturing industry: metal work.  Iron objects such as tools and knives for everyday purposes as well as moulds for making various types of jewellery were all uncovered.  Shoemakers and repairers also were in significant number.  Belts, straps, pouches, knife sheaths and piles of leather off-cuts all evidenced a thriving leather-craft trade.  Balls of beeswax used to lubricate the needles as they passed through the leather were all tell-tail signs of a flourishing industry.  Textile making materials such as needles and spindles to hold material were also uncovered.

**G** Re-created from the excavation of just four Viking-Age house plots, the small Jórvík Viking Centre which was opened in April 1984 reminds tourists and visitors of life long ago.  Using innovative interpretive methods, the York Archaeological Trust has recreated a model of what they believe the city of Jórvík would have been like.  Mid 10th century single-storey homes with upright posts supporting thatched roofs, open fireplaces and simple earthen floors have all been constructed.

**Questions 14 - 15**

You should spend about 20 minutes on **Questions 14 - 26** which are based on Reading Passage 2.

Choose **TWO** letters, **A-F**.

Write the correct letters in boxes 14-15 on your answer sheet.

The list below gives some factors which may explain why the artifacts at Jórvík were so well preserved.

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

|  |  |
| --- | --- |
| **A** | the complete absence of fires |
| **B** | the clay |
| **C** | the lack of oxygen in the soil |
| **D** | the organic composition of the artifacts |
| **E** | the abundance of decay bacteria |
| **F** | the combination of plants, wood chips and twigs in the area |

**Questions 16 - 21**

Do the following statements reflect the claims of the writer?

In boxes 16-21 on your answer sheet write

|  |  |  |
| --- | --- | --- |
|   | **YES** | if the statement agrees with the information in the passage |
|   | **NO** | if the statement contradicts the information in the passage |
|   | **NOT GIVEN** | if there is no information about the statement in the passage |

 **16** The archaeological findings in Jórvík are unusual.

**17** The number of combs discovered evidence large-scale head lice problems in Jórvík.

**18** Poor standards in cleanliness resulted in shorter life-spans.

**19** Most of the town of Jórvík has now been uncovered by archaeologists.

**20** Coins from Samarkand indicated that Jórvík had visitors from other countries. **21**        Coppergate was so called because many cups were made in the area.

**Questions 22 – 26**

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

Which paragraph contains the following information?

Write the correct letter, **A-G** in boxes 22-26 on your answer sheet.
**NB**      You may use any letter more than once.

**22**        examples of the types of industries in Jórvík
**23**        a reference to the material used in mid-10th century bedding in Jórvík
**24**        a reference to the number of Viking homes uncovered in Jórvík
**25**        a simple job definition
**26**        an example of an annoying type of insect

**Reading Passage 3**

|  |  |
| --- | --- |
| http://www.scottsenglish.com/0_swtyvrZa/labs/Reading/images/08-3.gif |      |
|  |  |

It is no small intellectual task that a child learns a language.  In order to begin to communicate, a young child must first gain an understanding of the internal structure of a system that, in reality, contains tens of thousands of units, all generated from a small set of basic building blocks.  In the case of English, these ‘basic building blocks’ are the alphabet and the ‘units’ are words.  Although initially, a child may be able to grasp and manipulate the basic letters of a language to form an infinite number of ‘units’, he or she must progress to another higher form of comprehension – the understanding that only a subset of those combinations is correct – what are actual meaningful words.  Somehow, a young child must become familiar with the structure of a particular language system such that he or she can use it to communicate with others.

Given the complexity of the process of language acquisition, the question of how infants learn to speak in their native language so rapidly is an interesting one.  Among linguists, the answer to this question has been researched and debated for decades.  Some researchers think that the answer to the question - if indeed there is one - may unlock a secret to faster language acquisition amongst older people.  Over the years, experiments where researchers have devised an artificial language that contained certain aspects of natural language structure have been tried.  The artificial language was presented to the infants one ‘piece’ or ‘sample’ at a time.  Once they became familiar with one piece of the language, another piece from the same artificial language was introduced.  Once the infant appeared comfortable with this process, a piece of real or bona fide language was introduced.  The researchers then measured such things as surprise and interest shown in the new language samples to determine whether or not the infant related to them as being completely new or as being more of what had been previously learned.  The infant’s reactions to the new stimuli helped linguists to determine what mechanisms underpin the first stages of language acquisition.  Experiments like this have uncovered some astonishing facts namely the rate at which an infant, even as young as 7 or 8 months, can take on the new information.  Some infants demonstrated the ability to process the new information after as little as 3 minutes of exposure.  Their young minds were able to structure the linguistic input into relevant and ultimately meaningful units of information.

Much of a child’s future social and intellectual development hinges upon their ability to acquire language.  For this reason, language acquisition is one of the key milestones in early childhood development.  Many child development experts encourage parents to start talking to their infant from the day of their birth.  Some researchers maintain that the best way for a child to learn is to simply hear language as those around them talk.  Repetition of structures seems to be a logical and academically defensible method of child language acquisition.  Quite a large body of research has shown that optimal language development occurs when the same stories are read over and over again to young children.  In one experiment, a mother exposed her son to only one book for nearly two years.  The results were that the child spoke much earlier than his other siblings and was able to recite 90% of the text on each page by the age of two.  Other studies have revealed that a knowledge of nursery rhymes among three-year-olds has been a significant predictor of later reading skill.

These examples of language learning, processing and producing, represent just a few of the many developments between birth and the eventual linguistic maturity that most children naturally attain.  It is during this early period that children discover the raw materials in the sounds of their language, learn how they are assembled into longer strings, and then used in meaningful contexts.  These processes unfold simultaneously, requiring children to organise the code of communication that surrounds them.  Even though each layer is complex, young children readily solve the linguistic puzzles they encounter.

Regardless of the methods employed, the acquisition of a language is not an automatic process but rather one that occurs as a result of a process of learning.  If a child does not take on a new language, then isolation and withdrawal often accompany learning difficulties and poor academic performance.

**Questions 27-31**

You should spend about 20 minutes on **Questions 27-40** Choose the correct letter, **A**, **B**, **C** or **D**.

Write the correct letter in boxes 27-31 on your answer sheet.

**27** According to the writer, an ‘internal language structure’ ………………..

**A** consists only of the alphabet.

**B** is the starting point for communication.

**C** comprises an infinite number of words.

**D** is another term for linguistic comprehension.

**28** The writer states that understanding a language occurs…………………….

**A** once the learner understands the ‘basic building blocks’.

**B** once the learner grasps the ‘units’ of a language.

**C** once the alphabet is learned.

**D** naturally, as soon as a child is old enough.

**29** An ‘artificial language’ ……………

**A** is a new form of communication amongst young children.

**B** was used as a contrast with real language.

**C** was devised slowly, over a considerable period of time.

**D** is a mixture of real and artificial words.

 **30** According to the writer, infant surprise and interest ……………….

**A** indicated infant intelligence.

**B** was greater amongst infants exposed to a bona fide language.

**C** revealed how language is initially learned.

**D** were the most dependable indicators of gauging infant reaction to new stimuli.

 **31** What greatly surprised researchers of infant language acquisition was……………..

**A** how readily participants demonstrated an ability to learn new languages.

**B** how quickly the infants learned to verbally communicate.

**C** how young the participants in the experiment were.

**D** how quickly some infants learned new information.

**Questions 32 – 35**

Complete the summary.

Choose **NO** **MORE THAN THREE WORDS** from the passage for each answer.

Write your answers in boxes 32-35 on your answer sheet.

If a child does not **32** ............... in early childhood, he or she will be greatly restricted in both the ability to interact with others and academic growth and development.  To teach infants language, some researchers recommend that they **33**............... it, while others feel that **34** ............... is the most effective way for them to learn.  Regardless of which method of language acquisition is used, most children reach **35** ...............  as they grow and develop.

**Questions 36 - 40**

Do the following statements reflect the claims of the writer?

In boxes 36-40 on your answer sheet write

**YES** if the statement agrees with the information in the passage

**NO** if the statement contradicts the information in the passage

 **NOT GIVEN** if there is no information about the statement in the passage

**36**        Understanding how children learn language may help adults learn language.

**37**        The reactions of infants to artificial languages were quite similar.

**38**        Learning about, organising and then using sounds occur regularly among children.

**39**        Language learning ability impacts upon writing ability.

**Question 40**

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

Write your answer in box 40 on your answer sheet.

What is the best title for Reading Passage 3?

**A** Clues for adult language learning.

**B** Language acquisition in infants and young children.

**C** Measuring speaking ability amongst infants.

**D** Acquiring language: The key to future learning.

**E** Experiments in infant language acquisition.