

The Power of The Big Screen

A. The Lumière Brothers opened their Cinématographe, at 14 Boulevard des Capucines in Paris, to 100 paying customers over 100 years ago, on December 8, 1895. Before the eyes of the stunned, thrilled audience, photographs came to life and moved across a flat screen.

B. So ordinary and routine has this become to us that it takes a determined leap of the imagination to grasp the impact of those first moving images. But it is worth trying, for to understand the initial shock of those images is to understand the extraordinary power and magic of cinema, the unique, hypnotic quality that has made film the most dynamic, effective art form of the 20th century.

C. One of the Lumière Brothers' earliest films was a 30-second piece which showed a section of a railway platform flooded with sunshine. A train appears and heads straight for the camera. And that is all that happens. Yet the Russian director Andrei Tarkovsky, one of the greatest of all film artists, described the film as a 'work of genius'. 'As the train approached,' wrote Tarkovsky, 'panic started in the theatre: people jumped and ran away. That was the moment when cinema was born. The frightened audience could not accept that they were watching a mere picture. Pictures were still, only reality moved; this must, therefore, be reality. In their confusion, they feared that a real train was about to crush them.'

D. Early cinema audiences often experienced the same confusion. In time, the idea of film became familiar, the magic was accepted -but it never stopped being magic. Film has never lost its unique power to embrace its audiences and transport them to a different world. For Tarkovsky, the key to that magic was the way in which cinema created a dynamic image of the real flow of events. A still picture could only imply the existence of time, while time in a novel passed at the whim of the reader. But in cinema, the real, objective flow of time was captured.

E. One effect of this realism was to educate the world about itself. For cinema makes the world smaller. Long before people travelled to America or anywhere else, they knew what other places looked like; they knew how other people worked and lived. Overwhelmingly, the lives recorded - at least in film fiction — have been American. From the earliest days of the industry, Hollywood has dominated the world film market. American imagery - the cars, the cities, the cowboys - became the primary imagery of film. Film carried American life and values around the globe.

F. And, thanks to film, future generations will know the 20th century more intimately than any other period. We can only imagine what life was like in the 14th century or in classical Greece. But the life of the modern world has been recorded on film in massive, encyclopaedic detail. We shall be known better than any preceding generations.

G. The 'star' was another natural consequence of cinema. The cinema star was effectively born in 1910. Film personalities have such an immediate presence that, inevitably, they become super-real. Because we watch them so closely and because everybody in the world seems to know who they are, they appear more real to us than we do ourselves. The star as magnified human self is one of cinema's most strange and enduring legacies.

H. Cinema has also given a new lease of life to the idea of the story. When the Lumière Brothers and other pioneers began showing off this new invention, it was by no means obvious how it would be used. All that mattered at first was the wonder of movement. Indeed, some said that, once this novelty had worn off, cinema would fade away. It was no more than a passing gimmick, a fairground attraction.

I. Cinema might, for example, have become primarily a documentary form. Or it might have developed like television - as a strange, noisy transfer of music, information and narrative. But what happened was that it became, overwhelmingly, a medium for telling stories. Originally these were conceived as short stories - early producers doubted the ability of audiences to concentrate for more than the length of a reel. Then, in 1912, an Italian 2-hour

film was hugely successful, and Hollywood settled upon the novel-length narrative that remains the dominant cinematic convention of today.

J. And it has all happened so quickly. Almost unbelievably, it is a mere 100 years since that train arrived and the audience screamed and fled, convinced by the dangerous reality of what they saw, and, perhaps, suddenly aware that the world could never be the same again - that, maybe, it could be better, brighter, more astonishing, more real than reality.

Questions 10-13

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

Write the correct letter in boxes 10-13 on your answer sheet.

10 The writer refers to the film of the train in order to demonstrate

- A. the simplicity of early films.
- B. the impact of early films.
- C. how short early films were.
- D. how imaginative early films were.

11 In Tarkovsky's opinion, the attraction of the cinema is that it

- A. aims to impress its audience.
- B. tells stories better than books.
- C. illustrates the passing of time.
- D. describes familiar events.

12 When cinema first began, people thought that

- A. it would always tell stories.
- B. it should be used in fairgrounds.
- C. its audiences were unappreciative.
- D. its future was uncertain.

13 What is the best title for this passage?

- A. The rise of the cinema star
- B. Cinema and novels compared
- C. The domination of Hollywood
- D. The power of the big screen

How bacteria invented gene editing

READING PASSAGE 1

You should spend about 20 minutes on Questions 1–16, which are based on Reading Passage 1 below.

This week the UK Human Fertilisation and Embryology Authority okayed a proposal to modify human embryos through gene editing. The research, which will be carried out at the Francis Crick Institute in London, should improve our understanding of human development. It will also undoubtedly attract controversy - particularly with claims that manipulating embryonic genomes is a first step towards designer babies. Those concerns shouldn't be ignored. After all, gene editing of the kind that will soon be undertaken at the Francis Crick Institute doesn't occur naturally in humans or other animals.

It is, however, a lot more common in nature than you might think, and it's been going on for a surprisingly long time - revelations that have challenged what biologists thought they knew about the way evolution works. We're talking here about one particular gene editing technique called CRISPR-Cas, or just CRISPR. It's relatively fast, cheap and easy to edit genes with CRISPR - factors that explain why the technique has exploded in popularity in the last few years. But CRISPR wasn't dreamed up from scratch in a laboratory. This gene editing tool actually evolved in single-celled microbes.

CRISPR went unnoticed by biologists for decades. It was only at the tail end of the 1980s that researchers studying *Escherichia coli* noticed that there were some odd repetitive sequences at the end of one of the bacterial genes. Later, these sequences would be named Clustered Regularly Interspaced Short Palindromic Repeats - CRISPRs. For several years the significance of these CRISPRs was a mystery, even when researchers noticed that they were always separated from one another by equally odd 'spacer' gene sequences.

Then, a little over a decade ago, scientists made an important discovery. Those 'spacer' sequences look odd because they aren't bacterial in origin. Many are actually snippets of DNA from viruses that are known to attack bacteria. In

2005, three research groups independently reached the same conclusion: CRISPR and its associated genetic sequences were acting as a bacterial immune system. In simple terms, this is how it works. A bacterial cell generates special proteins from genes associated with the CRISPR repeats (these are called CRISPR associated - Cas - proteins). If a virus invades the cell, these Cas proteins bind to the viral DNA and help cut out a chunk. Then, that chunk of viral DNA gets carried back to the bacterial cell's genome where it is inserted - becoming a spacer. From now on, the bacterial cell can use the spacer to recognise that particular virus and attack it more effectively.

These findings were a revelation. Geneticists quickly realised that the CRISPR system effectively involves microbes deliberately editing their own genomes - suggesting the system could form the basis of a brand new type of genetic engineering technology. They worked out the mechanics of the CRISPR system and got it working in their lab experiments. It was a breakthrough that paved the way for this week's announcement by the HFEA. Exactly who took the key steps to turn CRISPR into a useful genetic tool is, however, the subject of a huge controversy. Perhaps that's inevitable - credit for developing CRISPR gene editing will probably guarantee both scientific fame and financial wealth.

Beyond these very important practical applications, though, there's another CRISPR story. It's the account of how the discovery of CRISPR has influenced evolutionary biology. Sometimes overlooked is the fact that it wasn't just geneticists who were excited by CRISPR's discovery - so too were biologists. They realised CRISPR was evidence of a completely unexpected parallel between the way humans and bacteria fight infections. We've known for a long time that part of our immune system "learns" about the pathogens it has seen before so it can adapt and fight infections better in future. Vertebrate animals were thought to be the only organisms with such a sophisticated adaptive immune system. In light of the discovery of CRISPR, it seemed some bacteria had their own version. In fact, it turned out that lots of bacteria have their own version. At the last count, the CRISPR adaptive immune system was estimated to be present in about 40% of bacteria. Among the other major group of single-celled microbes - the archaea - CRISPR is even more common. It's seen in about

90% of them. If it's that common today, CRISPR must have a history stretching back over millions - possibly even billions - of years. "It's clearly been around for a while," says Darren Griffin at the University of Kent.

The animal adaptive immune system, then, isn't nearly as unique as we thought. And there's one feature of CRISPR that makes it arguably even better than our adaptive immune system: CRISPR is heritable. When we are infected by a pathogen, our adaptive immune system learns from the experience, making our next encounter with that pathogen less of an ordeal. This is why vaccination is so effective: it involves priming us with a weakened version of a pathogen to train our adaptive immune system. Your children, though, won't benefit from the wealth of experience locked away in your adaptive immune system. They have to experience an infection - or be vaccinated - first hand before they can learn to deal with a given pathogen.

CRISPR is different. When a microbe with CRISPR is attacked by a virus, the record of the encounter is hardwired into the microbe's DNA as a new spacer. This is then automatically passed on when the cell divides into daughter cells, which means those daughter cells know how to fight the virus even before they've seen it. We don't know for sure why the CRISPR adaptive immune system works in a way that seems, at least superficially, superior to ours. But perhaps our biological complexity is the problem, says Griffin. "In complex organisms any minor [genetic] changes cause profound effects on the organism," he says. Microbes might be sturdy enough to constantly edit their genomes during their lives and cope with the consequences - but animals probably aren't. The discovery of this heritable immune system was, however, a biologically astonishing one. It means that some microbes write their lifetime experiences of their environment into their genome and then pass the information to their offspring - and that is something that evolutionary biologists did not think happened.

Darwin's theory of evolution is based on the idea that natural selection acts on the naturally occurring random variation in a population. Some organisms are better adapted to the environment than others, and more likely to survive and

reproduce, but this is largely because they just happened to be born that way. But before Darwin, other scientists had suggested different mechanisms through which evolution might work. One of the most famous ideas was proposed by a French scientist called Jean-Baptiste Lamarck. He thought organisms actually changed during their life, acquiring useful new adaptations non-randomly in response to their environmental experiences. They then passed on these changes to their offspring.

People often use giraffes to illustrate Lamarck's hypothesis. The idea is that even deep in prehistory, the giraffe's ancestor had a penchant for leaves at the top of trees. This early giraffe had a relatively short neck, but during its life it spent so much time stretching to reach leaves that its neck lengthened slightly. The crucial point, said Lamarck, was that this slightly longer neck was somehow inherited by the giraffe's offspring. These giraffes also stretched to reach high leaves during their lives, meaning their necks lengthened just a little bit more, and so on. Once Darwin's ideas gained traction, Lamarck's ideas became deeply unpopular. But the CRISPR immune system - in which specific lifetime experiences of the environment are passed on to the next generation - is one of a tiny handful of natural phenomena that arguably obeys Lamarckian principles.

"The realisation that Lamarckian type of evolution does occur and is common enough, was as startling to biologists as it seems to a layperson," says Eugene Koonin at the National Institutes of Health in Bethesda, Maryland, who explored the idea with his colleagues in 2009, and does so again in a paper due to be published later this year. This isn't to say that all of Lamarck's thoughts on evolution are back in vogue. "Lamarck had additional ideas that were important to him, such as the inherent drive to perfection that to him was a key feature of evolution," says Koonin. No modern evolutionary biologist goes along with that idea. But the discovery of the CRISPR system still implies that evolution isn't purely the result of Darwinian random natural selection. It can sometimes involve elements of non-random Lamarckism too – a "continuum", as Koonin puts it. In other words, the CRISPR story has had a profound scientific impact far beyond the doors of the genetic engineering lab. It truly was a transformative discovery.

Questions 6–9

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

Write the correct letter in boxes 6–9 on your answer sheet.

6. 'Spacer' sequences look odd because:

- A. they are a bacterial immune system
- B. they are DNA from viruses
- C. they aren't bacterial in origin
- D. all of the above

7. The ones, who were excited about the CRISPR's discovery, were:

- A. biologists
- B. geneticists
- C. physicists
- D. A and B

8. Word "learns" in the line 44, 6th paragraph means:

- A. determines
- B. gains awareness
- C. adapts
- D. studies

9. What makes CRISPR better than even our adaptive immune system?

- A. long history of existence
- B. immortality
- C. heritability
- D. adaptiveness

LISTENING

PART 4

Questions 31-40

Complete the notes below.

Write **ONE WORD ONLY** for each answer.

Elephant translocation

Reasons for overpopulation at Majete National Park

- strict enforcement of anti-poaching laws
- successful breeding

Problems caused by elephant overpopulation

- greater competition, causing hunger for elephants
- damage to 31..... in the park

The translocation process

- a suitable group of elephants from the same 32..... was selected
- vets and park staff made use of 33..... to help guide the elephants into an open plain
- elephants were immobilised with tranquilisers
 - this process had to be completed quickly to reduce 34.....
 - elephants had to be turned on their 35..... to avoid damage to their lungs
 - elephants' 36..... had to be monitored constantly
 - tracking devices were fitted to the matriarchs
 - data including the size of their tusks and 37..... was taken
- elephants were taken by truck to their new reserve

Advantages of translocation at Nkhotakota Wildlife Park

- 38..... opportunities
- a reduction in the number of poachers and 39.....
- an example of conservation that other parks can follow
- an increase in 40..... as a contributor to GDP

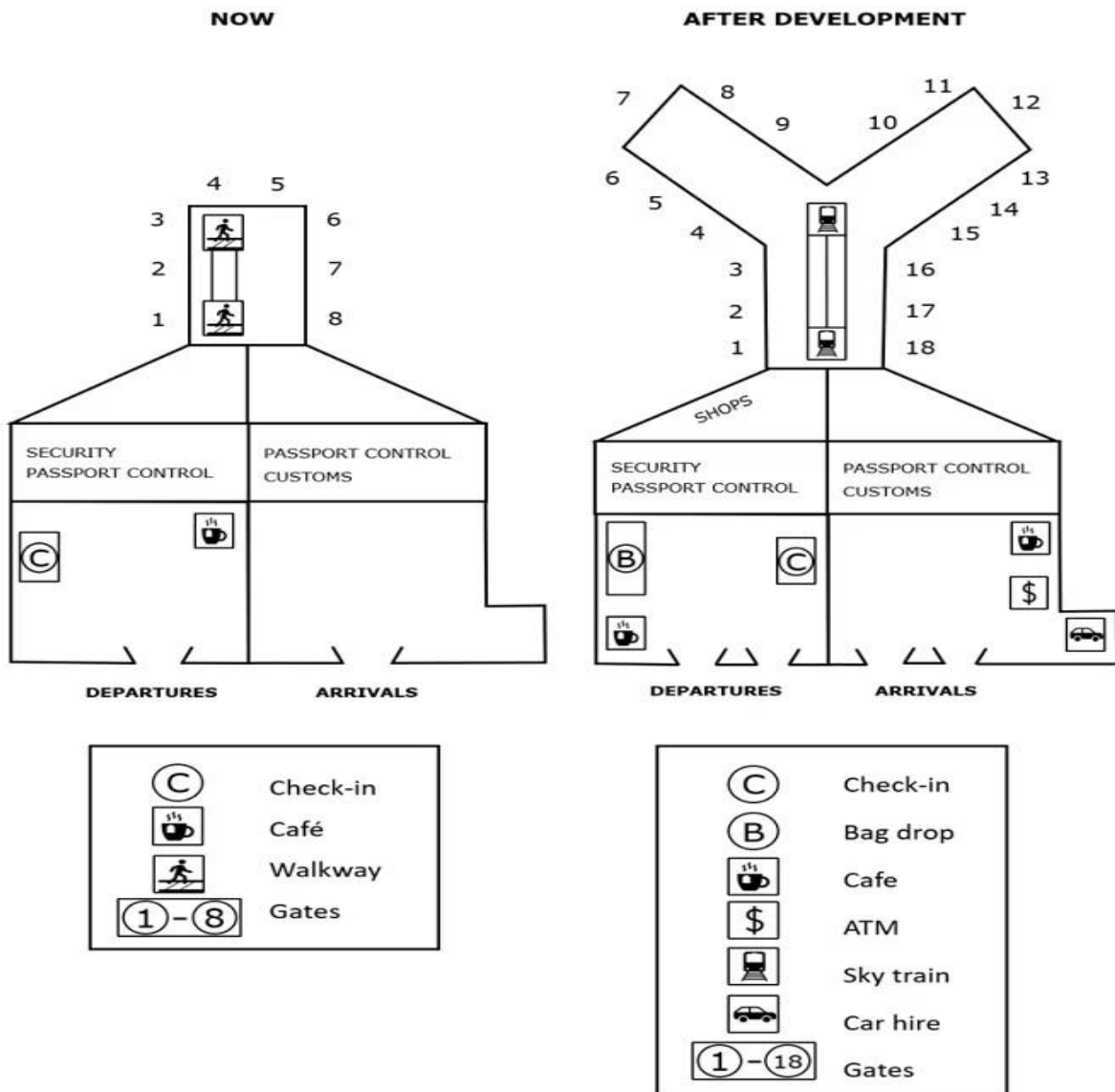
Task – 1

The plans below show the site of an airport now and how it will look after redevelopment next year.

Summarise the information by selecting and reporting the main features, and make comparisons where relevant.

Write at least 150 words.

SOUTHWEST AIRPORT



Book-16 Test-3

Writing Task-1(map of airport)

Introduction - The given maps provide details of the plans for the renovation of Southwest Airport, next year.

Sentence formation:-

1) **Present tense -V1 or is/are (to explain the current map)**

a) At the moment, there **are** 8 gates and passengers may **use** a moving walkway to get to their boarding gate.

2) **Future simple - (will + V1) or**

Future passive- (will be + V3)

(To show changes or to explain the future map)

a) The location of the departure and arrival entrances **will remain** the same.

b) Security, passport control, and customs **will be unchanged**.

Overview- Compare the main features of both the proposed maps.

Overall, it is readily apparent that the number of gates will greatly expand and a variety of customer facilities will be added including shops, a car hire, and an ATM.

Basic connectors:-To begin with, Moreover, Furthermore, Probing further, Moving on, Moving further, __, __.

14/March

Matti Wallian da Coaching Center

Himanshu EDUCATIONAL HUB

Near Kabir Ashram, Budhlada-151502 Distt. Mansa (PB)

Email- himanshusingla00009@gmail.com Mob: +91-92591-00-00-9

The assigned maps illustrate the site of an ^{today's} airport southwest airport and what it will look like after one year.

Overall, it is crystal clear that many new facilities will ^{be added} take place after renovation.

However, some sectors would be replaced and some would be introduced; like sky train

To begin with, nowadays, the airport has one arrivals and departures gate, however, there will be two gates on each side. There is a check-in site across the cafe inside the departure terminal, it is likely to be changed into bag drop, cafe would be relocated below bag drop. The check-in is predicted to be introduced in front of bag drop, interestingly one more cafe and ATM are assumed to be built inside the arrival terminal along with car hire. Moving further, shops are likely to be constructed just parallel to security passport control area ~~which~~ furthermore, there are eight gates on the north direction which will be ~~ad~~ 10 more will be added along with sky train instead of walkway.

Papyrus

Used by the ancient Egyptians to make paper, the papyrus plant has helped to shape the world we live in

A. Libraries and archives are cultural crossroads of knowledge exchange, where the past transmits information to the present, and where the present has the opportunity to inform the future. Bureaucracies have become the backbone of civilizations, as governments try to keep track of populations, business transactions and taxes. At a personal level, our lives are governed by the documents we possess; we are certified on paper literally from birth to death. And written documentation carries enormous cultural importance: consider the consequences of signing the Foundation Document of the United Nations or the Convention on Biological Diversity.

Documentation requires a writing tool and a surface upon which to record the information permanently. About 5,000 years ago, the Sumerians started to use reeds or sticks to make marks on mud blocks which were then baked, but despite being fireproof, these were difficult to store. Other cultures used more flexible but less permanent surfaces, including animal skins and wood strips. In western culture, the adoption of papyrus was to have a great impact. Sheets of papyrus not only provide an invaluable record of people's daily lives, they can also be dated using carbon-dating techniques, giving precise information about the age of the text written on them.

B. Papyrus is strongly associated with Egyptian culture, although all the ancient civilizations around the Mediterranean used it. The papyrus sedge is a tall grass-like plant. It was harvested from shallow water and swamplands on the banks of the River Nile. Manufacturing sheets of papyrus from papyrus sedge was a complex, messy process. Pith from inside the plant's stem was cut into long strips that were laid side by side. These were then covered with a second layer of strips which were laid at right angles to the first, then soaked in water and hammered together. The sheet was then crushed to extract the water, dried and then polished to produce a high-quality writing surface, individual sheets could be glued together and rolled up to make scrolls or folded and bound to form books.

C. In moist climates, the cellulose-rich sheets of papyrus would readily decay, becoming covered by mould or full of holes from attacks by insects. But in dry climates, such as the Middle East, papyrus is a stable, rot-resistant writing surface. The earliest known roll of papyrus scroll was found in the tomb of an official called Hemeka near Memphis, which was then the capital city of Egypt, and is around five thousand years old. In 79CE, nearly 2,000 papyrus scrolls in the library of Julius Caesar's father-in-law were protected at Herculaneum by ash from the catastrophic eruption of Mount Vesuvius. However, the most famous discoveries of papyrus have come from the rubbish dumps of the ancient town of Oxyrhynchus, some 160km south-west of Cairo, in the desert to the west of the Nile. Oxyrhynchus was a regional administrative capital and for a thousand years generated vast amounts of administrative documentation, including accounts, tax returns and correspondence, which was periodically discarded to make room for more. Over time, a thick layer of sand covered these

dumps, and they were forgotten. But the documents were protected by the sand, creating a time capsule that allowed astonishing glimpses into the lives of the town's inhabitants over hundreds of years.

Collections of documents that record information and ideas have frequently been viewed as potentially dangerous. For thousands of years, governments, despots and conquerors have resorted to burning libraries and books to rid themselves of inconvenient evidence or obliterate cultures and ideas that they found politically, morally or religiously unacceptable. One such calamity, the burning of the Great Library of Alexandria, and the papyrus scrolls and books it contained, has been mythologized and has come to symbolize the global loss of cultural knowledge.

D. Besides their use in record-keeping, papyrus stems were used in many other aspects of Mediterranean life, such as for boat construction and making ropes, sails and baskets, as well as being a source of food. In 1969 the adventurer Thor Heyerdahl attempted to cross the Atlantic from Morocco in the boat Ra, to show that it was possible for mariners in ancient times to cross the Atlantic Ocean. Ra was made from bundles of papyrus stems and modelled on ancient Egyptian craft. As a marshland plant, papyrus sedge stabilizes soils and reduces erosion, while some investigations show that it has potential for water purification and sewage treatment.

E. True paper was probably invented in China in the first century CE. Like papyrus, it was constructed from a meshwork of plant fibres, but the Chinese used fibres from the white mulberry tree, which yielded a tough, flexible material that could be folded, stretched, and

compressed. The adoption of this paper by western cultures soon rendered papyrus obsolete.

Despite dreams of paper-free societies, western cultures still use enormous quantities of paper, often in ways that it would be inconceivable to use papyrus for. As a paper substitute, the role of the papyrus sedge in western cultures has been superseded; papyrus is little more than a niche product for the tourist market. What makes papyrus noteworthy for western societies nowadays is its use as the surface upon which our ancient ancestors recorded their lives, their art and their science. In the words of the ancient Roman philosopher Pliny the Elder, it is 'the material on which the immortality of human beings depends'.

Questions 33-37

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

Write the correct letter in boxes **33-37** on your answer sheet.

33. What was the problem with using animal skins and wood strips for writing on?

- A** They did not last for a long time.
- B** They were not easy to store.
- C** They were insufficiently flexible.
- D** They could be destroyed by fire.

34. Why did papyrus manufacturers hammer the papyrus?

- A** to remove water from the pith strips
- B** to join the layers of pith strips together
- C** to allow the pith strips to be easily cut
- D** to position the layers of pith strips at the correct angle

35. When referring to burning libraries and books, the writer is suggesting that

A information can be used for harm as well as for good.

B new ways must be found to ensure information is not lost.

C cultural knowledge depends on more than written texts.

D those in power may wish to keep others in ignorance.

36. The writer refers to Thor Heyerdahl to illustrate the point that

A papyrus could be used as a food on long sea voyages.

B the ancient Egyptians already had advanced navigation skills.

C papyrus could be used to build boats for long sea journeys.

D the ancient Egyptians knew of the environmental benefits of papyrus

37. What does the writer conclude about papyrus today?

A It is better for the environment than using paper.

B Its significance is restricted to its role in the past.

C It is still the best writing surface for some purposes.

D More efforts need to be made to ensure it stays in use.

Communication in Science



A

Science plays an increasingly significant role in people's lives, making the faithful communication of scientific developments more important than ever. Yet such communication is fraught with challenges that can easily distort discussions, leading to unnecessary confusion and misunderstandings.

B

Some problems stem from the esoteric nature of current research and the associated difficulty of finding sufficiently faithful terminology. Abstraction and complexity are not signs that a given scientific direction is wrong, as some commentators have suggested, but are instead a tribute to the success of human ingenuity in meeting the increasingly complex challenges that nature presents. They can, however, make communication more difficult. But many of the biggest challenges for science reporting arise because in areas of evolving research, scientists themselves often only partly understand the full implications of any particular advance or development. Since that dynamic applies to most of the scientific developments that directly affect people's lives global warming, cancer research, diet studies – learning how to overcome it is critical to spurring a more informed scientific debate among the broader public.

C

Ambiguous word choices are the source of some misunderstandings. Scientists often employ colloquial terminology, which they then

assign a specific meaning that is impossible to fathom without proper training. The term “relativity,” for example, is intrinsically misleading. Many interpret the theory to mean that everything is relative and there are no absolutes. Yet although the measurements any observer makes depend on his coordinates and reference frame, the physical phenomena he measures have an invariant description that transcends that observer’s particular coordinates. Einstein’s theory of relativity is really about finding an invariant description of physical phenomena. True, Einstein agreed with the idea that his theory would have been better named *“Invarianten theorie.”* But the term “relativity” was already entrenched at the time for him to change.

D

“The uncertainty principle” is another frequently abused term. It is sometimes interpreted as a limitation on observers and their ability to make measurements.

E

But it is not about intrinsic limitations on any one particular measurement; it is about the inability to precisely measure particular pairs of quantities simultaneously? The first interpretation is perhaps more engaging from a philosophical or political perspective. It’s just not what the science is about.

F

Even the word “theory” can be a problem. Unlike most people, who use the word to describe a passing conjecture that they often regard as suspect, physicists have very specific ideas in mind when they talk about theories. For physicists, theories entail a definite physical framework embodied in a set of fundamental assumptions about the world that lead to a specific set of equations and predictions – ones that are borne out by successful predictions. Theories aren’t necessarily shown to be correct or complete immediately. Even

Einstein took the better part of a decade to develop the correct version of his theory of general relativity. But eventually both the ideas and the measurements settle down and theories are either proven correct, abandoned or absorbed into other, more encompassing theories.

G

“Global warming” is another example of problematic terminology. Climatologists predict more drastic fluctuations in temperature and rainfall – not necessarily that every place will be warmer. The name sometimes subverts the debate, since it lets people argue that their winter was worse, so how could there be global warming? Clearly “global climate change” would have been a better name. But not all problems stem solely from poor word choices. Some stem from the intrinsically complex nature of much of modern science. Science sometimes transcends this limitation: remarkably, chemists were able to detail the precise chemical processes involved in the destruction of the ozone layer, making the evidence that chlorofluorocarbon gases (Freon, for example) were destroying the ozone layer indisputable.

H

A better understanding of the mathematical significance of results and less insistence on a simple story would help to clarify many scientific discussions. For several months, Harvard was tortured months, Harvard was tortured by empty debates over the relative intrinsic scientific abilities of men and women. One of the more amusing aspects of the discussion was that those who believed in the differences and those who didn't use the same evidence about gender-specific special ability? How could that be? The answer is that the data shows no substantial effects. Social factors might account for these tiny differences, which in any case have an unclear connection to scientific ability. Not much of a headline when phrased that way, is it? Each type of science has its own source of complexity and potential

for miscommunication. Yet there are steps we can take to improve public understanding in all cases. The first would be to inculcate greater understanding and acceptance of indirect scientific evidence. The information from an unmanned space mission is no less legitimate than the information from one in which people are on board.

I

This doesn't mean questioning an interpretation, but it also doesn't mean equating indirect evidence with blind belief, as people sometimes suggest. Second, we might need different standards for evaluating science with urgent policy implications than research with the purely theoretical value. When scientists say they are not certain about their predictions, it doesn't necessarily mean they've found nothing substantial. It would be better if scientists were more open about the mathematical significance of their results and if the public didn't treat math as quite so scary; statistics and errors, which tell us the uncertainty in a measurement, give us the tools to evaluate new developments fairly.

J

But most important, people have to recognize that science can be complex. If we accept only simple stories, the description will necessarily be distorted. When advances are subtle or complicated, scientists should be willing to go the extra distance to give proper explanations and the public should be more patient about the truth. Even so, some difficulties are unavoidable. Most developments reflect work in progress, so the story is complex because no one yet knows the big picture.

Questions 1-5

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

Write your answers in boxes 1-5 on your answer sheet.

1. Why faithful science communication important?

- A Science plays an increasingly significant role in people's lives.
- B Science is fraught with challenges public are interested in.
- C The nature of complexity in science communication leads to confusion.
- D Scientific inventions are more important than ever before.

2. what is the reason that the author believes for the biggest challenges for science reporting

- A phenomenon such as global warming, cancer research, diet studies is too complex.
- B Scientists themselves often only partly understand the Theory of Evolution
- C Scientists do not totally comprehend the meaning of certain scientific evolution
- D Scientists themselves often partly understand the esoteric communication nature

3. According to the 3rd paragraph, the reference to the term and example of "theory of relativity" is to demonstrate

- A theory of relativity is about an invariant physical phenomenon
- B common people may be misled by the inaccurate choice of scientific phrase
- C the term "relativity," is designed to be misleading public
- D everything is relative and there is no absolute existence

4. Which one is a good example of appropriate word choice:

- A Scientific theory for the uncertainty principle**
- B phenomenon of Global warming**
- C the importance of ozone layer**
- D Freon's destructive process on environmental**

5. What is a surprising finding of the Harvard debates in the passage?

- A There are equal intrinsic scientific abilities of men and women.**
- B The proof applied by both sides seemed to be of no big difference.**
- C The scientific data usually shows no substantial figures to support a debated idea.**
- D Social factors might have a clear connection to scientific ability.**

LISTENING

PART 4

Questions 31-40

Complete the notes below.

Write **ONE WORD ONLY** for each answer.

Pockets

Reason for choice of subject

- They are 31..... but can be overlooked by consumers and designers.

Pockets in men's clothes

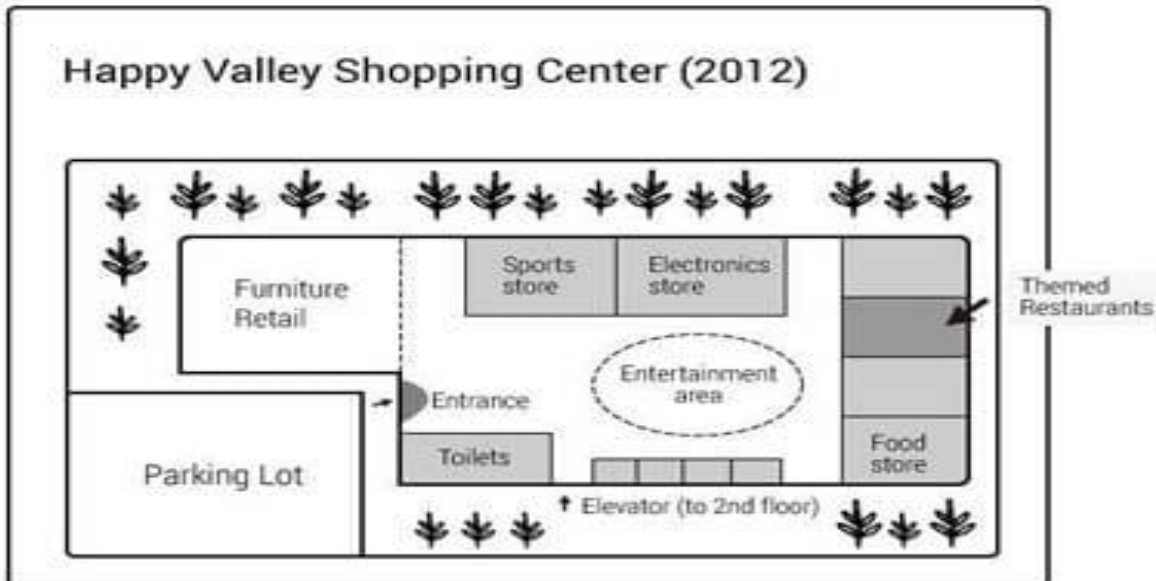
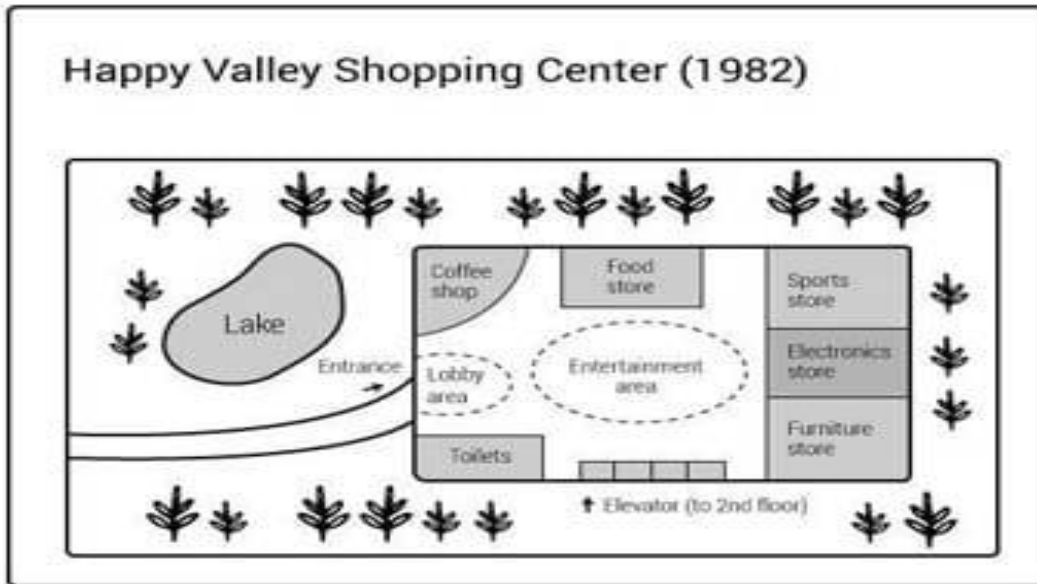
- Men started to wear 32..... in the 18th century.
- A 33..... sewed pockets into the lining of the garments.
- The wearer could use the pockets for small items.
- Bigger pockets might be made for men who belonged to a certain type of 34.....

Pockets in women's clothes

- Women's pockets were less 35..... than men's.
- Women were very concerned about pickpockets.
- Pockets were produced in pairs using 36..... to link them together.
- Pockets hung from the women's 37..... under skirts and petticoats.
- Items such as 38..... could be reached through a gap in the material.
- Pockets, of various sizes, stayed inside clothing for many decades.
- When dresses changed shape, hidden pockets had a negative effect on the 39..... of women.
- Bags called 'pouches' became popular, before women carried a 40.....

Writing

The maps below show the happy valley shopping centre in 1982 and 2012. Summarize the information by selecting and reporting the main feature and make comparison where relevant.



Matti Waleyan Da IELTS Centre

HIMANSHU EDUCATIONAL HUB

Sentence formations for data depictions:

Tense used

Past tense

Active: verb 2

Passive: was /were verb 3

Had+ v3

Example: lake had been demolished.

While+ gerund

Introduction:

The assigned maps illustrate the site of the happy valley shopping centre which developed over two distinct years; 1982 and 2012.

Overall:

It can be clearly seen that many new facilities took place after renovation. Some sectors were demolished and some were newly introduced like themed restaurants.

Map

15 March

ਮੱਤੀ ਵਾਲਿਆਂ ਦਾ IELTS ਸੈਂਟਰ

HIMANSHU EDUCATIONAL HUB

The assigned maps illustrate the site of happy valley shopping center which developed over two distinct years; 1982 and 2012.

Overall, it is crystal clear that many new facilities took place after renovation. Some sectors were demolished and some were newly introduced like themed restaurants.

To begin with, there was a lake which was surrounded by several trees, that had been ~~del~~ demolished completely. However, in the south-west corner trees were replaced by parking lot. While entering inside the shopping center, lobby area was between coffee shop and toilets and both had been deconstructed.

Moving further, coffee shop and food store had been converted into sports store and electronics store, which were newly introduced. Notably, The entertainment area and Elevator to second floor remained unchanged. Interestingly, on the right side the area for sports store and electronics store had been relocated and a themed restaurants were built while furniture store was shifted by food store.