

# #SWT

**Summarize Written Text**  
Real Exam Questions Included **Ver 7.0**



# PTE Self Study

more than a group ...



گروه **PTE SELF STUDY** در تاریخ ۳ تیر ۱۳۹۶ توسط فرزین غفارنژاد، فراز تاج فیروز و علیرضا پلویی تاسیس شد و رسالتش از آنروز تا به امروز کمک به هموطنان برای کسب نمره زبان از طریق آزمون **PTE Academic** بوده و خواهد بود.

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# Contents

1. Pascolena Florry .....	8
2. Children’s Watching TV .....	8
3. SLP Officer .....	9
4. Cow and Grass .....	10
5. Australian Education .....	11
6. National Prohibition Act .....	12
7. The City of London .....	12
8. Asking Questions .....	13
9. Diaspora Consciousness .....	14
10. Call for Revolutionary Thinking .....	15
11. The Problem of Prediction .....	16
12. Are Female Songbirds Evolution’s Unsung Heroines? .....	17
13. Country Living .....	18
14. House Mice .....	18
15. Beauty Contest .....	19
16. Comparative Advantages .....	20
17. Nobel Peace Prize .....	21
18. Parent’s Birth Order Affects Their Parenting .....	22
19. Napping (1) .....	23
20. Tree Ring Dating – Dendrochronology (1) .....	24
21. The Khoikhoi .....	25
22. Computer Programming .....	26
23. Tourism Industry .....	27
24. Theory of Resonance .....	27
25. Anti-Bullying Project .....	28
26. War of Talent – The Demand for Talent .....	29
27. Marshmallow Test .....	30
28. Crisis in British Archaeology .....	31
29. Geothermal Energy in Africa .....	32
30. Language Development .....	33
31. Greenhouse Gases .....	34



32. Australian Indigenous Food .....	34
33. Upper Paleolithic People .....	35
34. Wright Brothers (v1) .....	36
35. Compulsory Voting .....	37
36. Skipping Breakfast .....	38
37. Sports strive to be swifter, higher, lower in carbon.....	38
38. Office Space .....	39
39. Wright Brothers and Flight.....	40
40. The New Museology .....	41
41. Electric Cars .....	42
42. Experimental Treatment .....	42
43. Plants Research.....	43
44. Primary Carer .....	44
45. THE BOOKSELLERS OF HOOKHAM .....	45
46. The smallest star .....	46
47. The oral storytelling skills of African American preschoolers.....	46
48. The greatest climate change .....	47
49. Cyberbullying.....	48
50. Delivering packages .....	48
51. Nurse Sharks.....	49
52. The food and eating in Australian public consciousness.....	49
53. Orbital Debris .....	50
54. Electric Eels.....	51
55. The importance of Water.....	51
56. Frog in Amber .....	52
57. Overqualified worker .....	53
58. Overqualified.....	53
59. Presidential election .....	54
60. Double Blind .....	55
61. Rosetta Stone.....	56
62. Online learning .....	56
63. American English.....	57
64. Indonesian Volcano .....	58
65. Malaysia .....	58





66. Benefits of Honey (1) .....	59
67. Twins .....	60
68. The Story of Columbus .....	61
69. Electric Vehicle - PEV .....	61
70. Eye surgery - Blindness .....	62
71. Autism .....	63
72. Books and Television .....	63
73. Research on Birds- Climate Change.....	64
74. Multi-life .....	65
75. Cities.....	65
76. Great Managers .....	66
77. Free labor system .....	67
78. Sunshine Revolution .....	67
79. Crime rate.....	68
80. Tricks of the Writers Trade .....	69
81. South Africa .....	70
82. Coffee experience .....	70
83. Wright Brothers (v2).....	71
84. Madeline Gannon.....	72
85. Paying for child.....	73
86. Uncovering Secrets of the Sphinx.....	74
87. Small wars.....	74
88. Dinosaurs .....	75
89. The World Wide Web.....	75
90. How to determine a protein's shape.....	76
91. Giraffes .....	77
92. Negotiation.....	77
93. Malaria may weaken the skeleton .....	78
94. Parents' TV time may be the biggest influence on kids .....	78
95. Connection between international environmental law and policy .....	79
96. Democracy Government .....	80
97. Georges-Eugène Haussmann .....	81
98. Living things .....	82
99. Napping (2).....	83



100. American English Dominance .....	83
101. Benefits of honey (2) .....	84
102. Cocoa .....	85
103. Pace of Aging: Australia and Japan .....	85
104. The evolution of the RAS .....	86
105. Are Individuals Enough? .....	87
106. Brain.....	87
107. Why is the night sky dark?.....	88
108. Men and women differ little in political activities .....	89
109. Tree Ring Dating – Dendrochronology (2).....	89
110. Newborns don't imitate adults.....	90
111.UBC expeditions to the Canadian Arctic.....	91
112.Aging world .....	91



## SWT Template by Faraz Tajfroz:

Whereas the fundamental essence of **N1** emphasizes the significance of **N2**, the corresponding impacts of **N3** such as **N4** and **N5** are acknowledged, and **N6** could be inferred evidently from **N7**, which the potential implications of **N8** as well as **N9** are presumed.

(43 words)

Grammarly score: 100

N= Noun phrase

## 1. Pascolena Florry

When Namibia gained independence in 1990, teenager Pascolena Florry was herding goats in the country's dry, desolate northern savannah. Her job 'unpaid and dangerous' was to protect her parents' livestock from preying jackals and leopards. She saw wildlife as the enemy, and many of the other indigenous inhabitants of Namibia's rural communal lands shared her view. Wildlife poaching was commonplace. Fifteen years later, 31-year-old Pascolena's life and outlook are very different. She has built a previously undreamed-of career in tourism and is the first black Namibian to be appointed the manager of a guest lodge. Her village and hundreds of others have directly benefited from government efforts to devolve wildlife management and tourism development on communal lands to conservancies run by indigenous peoples. "Now we see the wildlife as our way of creating jobs and opportunities as the tourism industry grows", she also says. "The future is better with wildlife around' not only for jobs but also for the environment" (Florry 2004).

### Sample answer 1 (Template):

Whereas the fundamental essence of **seeing wildlife as an enemy** emphasizes the significance of **Namibian indigenous inhabitants**, the corresponding impacts of **a career in tourism** such as **benefiting from government efforts** and **devolving wildlife management** are acknowledged, and **tourism development** could be inferred evidently from **running conservancies** and **the environment**, which the potential implications of **creating jobs** as well as **opportunities** are presumed. (63 words)

### Sample answer 2:

The establishment of conservancies, run by local communities and assisted by the government and NGOs, has been proved successful to help developing countries to decentralize natural resources, create jobs and improve the economy. (33 words)

## 2. Children's Watching TV

Why and to what extent should parents control their children's TV watching? There is certainly nothing inherently wrong with TV. The problem is how much television a child watches and what effect it has on his life. Research has shown that as the amount of time spent watching TV goes up, the amount of time devoted not only to homework and study but other important aspects of life such as social development and physical activities decreases.

Television is bound to have its tremendous impact on a child' both in terms of how many hours a week he watches TV and of what he sees. When a parent is concerned about the effects of watching television' he should consider a number of things: what TV offers the child in terms of information and knowledge, how many hours a week a youngster his age should watch television, the impact of violence and sex, and the influence of commercials.

What about the family as a whole? Is the TV set a central piece of furniture in your home! Is it flicked on the moment someone enters the empty house? Is it on during the daytime? Is it part



of the background noise of your family life? Do you demonstrate by your own viewing that television should be watched selectively?

Since television is clearly here to stay, it is important that parents manage their children's TV viewing so that it can be a plus rather than a minus in the family situation.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **controlling children's TV watching** emphasizes the significance of **spending too much time on watching TV**, the corresponding impacts of **homework and study** such as **the social development** and **physical activities** are acknowledged, and **tremendous impacts on kids' life** and **sex** could be inferred evidently from **information and knowledge**, which the potential implications of **being a plus** as well as **the family situation** are presumed. (69 words)

**Sample answer 2:**

Watching too much television has negative effects on important aspects of children's life and it is not television but the way that parents manage their children's TV watching, including the time they spend on, the programs they watch and even how the family deal with the TV, that matters. (49 words)

### 3. SLP Officer

Armed police have been brought into NSW schools to reduce crime rates and educate students. The 40 School Liaison Police (SLP) officers have been allocated to public and private high schools across the state. Organizers say the officers, who began work last week, will build positive relationships between police and students. But parent groups warned of potential dangers of armed police working at schools in communities where police relations were already under strain. Among their duties, the SLPs will conduct crime prevention workshops, talking to students about issues including shoplifting, offensive behavior, graffiti and drugs, and alcohol. They can also advise school principals. One SLP, Constable Ben Purvis, began to work in the inner Sydney region last week, including at Alexandria Park Community School's senior campus. Previously stationed as a crime prevention officer at The Rocks, he now has 27 schools under his jurisdiction in areas including The Rocks, Redfern and Kings Cross.

Constable Purvis said the full-time position would see him working on the broader issues of crime prevention. "I am not a security guard", he said. "I am not there to patrol the school. We want to improve relationships between police and schoolchildren, to have a positive interaction. We are coming to the school and giving them the knowledge to improve their own safety."

The use of fake ID among older students is among the issues he has already discussed with principals.

Parents' groups responded to the program positively, but said it may spark a range of community reactions.

"It is a good thing and an innovative idea and there could be some positive benefits", Council of Catholic School Parents executive officer

Danielle Cronin said. “Different communities will respond to this kind of presence in different ways.”

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the armed police** emphasizes the significance of **bringing into NSW schools** and **improving schoolchildren’s safety**, the corresponding impacts of **reducing crime rates** such as **educating students** and **building positive relationships** are acknowledged, and **parent groups** could be inferred evidently from **potential dangers of armed police working at schools**, which the potential implications of **conducting crime prevention workshops** as well as **sparking a range of community reactions** are presumed. (73 words)

**Sample answer 2:**

School liaison police have been brought into NSW schools to reduce crime rates and improve students’ safety by conducting workshops and some people believe it a good thing while others not. (31 words)

**4. Cow and Grass**

The co-evolutionary relationship between cows and grass is one of nature’s underappreciated wonders; it also happens to be the key to understanding just about everything about modern meat. For the grasses, which have evolved to withstand the grazing of ruminants, the cow maintains and expands their habitat by preventing trees and shrubs from gaining a foothold and hogging the sunlight; the animal also spreads grass seed, plants it with his hooves, and then fertilizes it with his manure. In exchange for these services, the grasses offer ruminants a plentiful and exclusive supply of lunch. For cows (like sheep, bison, and other ruminants) have evolved the special ability to convert grass— which single-stomached creatures like us can’t digest—into high-quality protein. They can do this because they possess what is surely the most highly evolved digestive organ in nature: the rumen. About the size of a medicine ball, the organ is essentially a forty-five-gallon fermentation tank in which a resident population of bacteria dines on grass. Living their unseen lives at the far end of the food chain that culminates in a hamburger, these bacteria have, just like the grasses, coevolved with the cow, whom they feed. Truly this is an excellent system for all concerned: for the grasses, for the bacteria, for the animals, and for us, the animal eaters.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the co-evolutionary relationship between cows and grass** emphasizes the significance of **the modern meat** and **ruminants**, the corresponding impacts of **withstanding the grazing of ruminants** such as **maintaining habitat** and **the manure** are acknowledged, and **offering a plentiful supply of lunch** could be inferred evidently from **converting grass into high-quality protein**, which the potential implications of **the rumen** as well as **a resident population of bacteria** are presumed. (73 words)



**Sample answer 2:**

There is a co-evolutionary relationship among cows, grass and bacteria as cows have rumen where bacteria could digest grass into high quality protein while they help the grass spread seed by their hooves and also provide manure to it. (39 words)

**5. Australian Education**

When Australians engage in debate about educational quality or equity, they often seem to accept that a country cannot achieve both at the same time. The lecture will present compelling international evidence that there are countries which do, though Australia is not among them. Curriculum reforms intended to improve equity often fail to do so because they increase breadth or differentiation in offerings in a way that increases differences in quality. Further, these differences in quality often reflect differences in students, social backgrounds because the 'new' offerings are typically taken up by relatively disadvantaged students who are not served well by them. Evidence from New South Wales will be used to illustrate this point. The need to improve the quality of education is well accepted across OECD and other countries as they seek to strengthen their human capital to underpin their modern, knowledge economies. Improved equity is also important for this purpose since the demand for high-level skills is widespread and the opportunities for the low-skilled are diminishing.

Improved equity in education is also important for social cohesion. There are countries in which the education system seems primarily to reproduce existing social arrangements, conferring privilege where it already exists and denying it where it does not. Even in countries where the diagnosis might be less extreme, the capacity of schooling to build social cohesion is often diminished by the way, in which schools separate individuals and groups.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **Australian educational equity and quality** emphasizes the significance of **not achieving at the same time**, the corresponding impacts of **increasing differences in quality** such as **improved quality** and **strengthening the human capital** are acknowledged, and **a widespread demand for high-level skills** could be inferred evidently from **diminishing opportunities for low-skilled**, which the potential implications of **improved equity** as well as **the social cohesion** are presumed. (70 words)

**Sample answer 2:**

Although improved educational equity increases differences in quality so that educational equity and quality can't be achieved at the same time, improved educational equity and quality are still important because they could strengthen human capital and social cohesion. (38 words)

## 6. National Prohibition Act

In 1920, the Eighteenth Amendment to the United States Constitution was enacted, creating yet another serious setback to the American wine industry. The National Prohibition Act, also known as the Volstead Act, prohibited the manufacture, sale, transportation, importation, exportation, delivery, or possession of intoxicating liquors for beverage purposes, and nearly destroyed what had become a thriving national industry. In 1920 there were more than seven hundred wineries in California. By the end of Prohibition, there were 160.

If Prohibition had lasted only four or five years, its impact on the wine industry might have been negligible. But it continued for thirteen years, during which time grapes went underground literally and figuratively, becoming an important commodity in the criminal economy. One loophole in the Volstead Act allowed for the manufacture and sale of sacramental wines, medicinal wines for sale by pharmacists with a doctor's prescription, and medicinal wine tonics (fortified wines) sold without a prescription. Perhaps more importantly, Prohibition allowed anyone to produce up to two hundred gallons of fruit juice or cider each year. The fruit juice, which was sometimes made into concentrate, was ideal for making wine. Some of this yield found its way to bootleggers throughout America who did just that. But not for long, because the government stepped in and banned the sale of grape juice, preventing illegal wine production. Vineyards stopped being planted, and the American wine industry ground to a halt.

### Sample answer 1 (Template):

Whereas the fundamental essence of **the American wine industry** emphasizes the significance of **the National Prohibition Act**, the corresponding impacts of **prohibiting the trade of intoxicating liquors** such as **the criminal economy** and **one loophole** are acknowledged, and **producing fruit juice** could be inferred evidently from **being ideal for making wine**, which the potential implications of **banning by the government** as well as **preventing illegal wine production** are presumed. (69 words)

### Sample answer 2:

In 1920, the Volstead Act came into effect and lasted for 13 years to prohibit the manufacture, sale, transportation, importation, exportation, delivery, or possession of intoxicating liquors and almost destroyed this industry though its loophole allowed for the production of some kinds of wine and fruit juice which later on was banned by the government. (55 words)

## 7. The City of London

Who would have thought back in 1698, as they downed their espressos, that the little band of stockbrokers from Jonathan's Coffee House in Change Alley EC3 would be the founder-members of what would become the world's mighty money capital?

Progress was not entirely smooth. The South Sea Bubble burst in 1720 and the coffee house exchanges burned down in 1748. As late as Big Bang in 1986, when bowler hats were finally hung up, you wouldn't have bet the farm on London surpassing New York, Frankfurt and Tokyo as Mammon's international nexus. Yet the 325,000 souls who operate in the UK



capital's financial hub have now overtaken their New York rivals in size of the funds managed (including offshore business); they hold 70% of the global secondary bond market and the City dominates the foreign exchange trading. And its institutions paid out £9 billion in bonuses in December. The Square Mile has now spread both eastwards from EC3 to Canary Wharf and westwards into Mayfair, where many of the private-equity 'locusts' and their hedge-fund pals now hang out. For foreigners in finance, London is the place to be. It has no Sarbanes-Oxley and no euro to hold it back, yet the fact that it still flies so high is against the odds. London is one of the most expensive cities in the world to live in, transport systems groan and there's an ever-present threat of terrorist attack. But, for the time being, the deals just keep on getting bigger.

### Sample answer 1 (Template):

Whereas the fundamental essence of **London** emphasizes the significance of **the world's mighty money capital**, the corresponding impacts of **overtaking the New York rivals** such as **the global secondary bond market** and **dominating the foreign exchange trading** are acknowledged, and **having no Sarbanes-Oxley** could be inferred evidently from **being expensive**, which the potential implications of **groaning transport systems** as well as **an ever-present threat of terrorist attack** are presumed. (69 words)

\*managing funds

### Sample answer 2:

London has surpassed its rivals and has dominated global financial markets to become the world's mighty money capital due to its judicial and currency advantages even though the expansion progress was not smooth. (33 words)

## 8. Asking Questions

All non-human animals are constrained by the tools that nature has bequeathed them through natural selection. They are not capable of striving towards truth; they simply absorb information, and behave in ways useful for their survival. The kinds of knowledge they require of the world have been largely pre-selected by evolution. No animal is capable of asking questions or generating problems that are irrelevant to its immediate circumstances or its evolutionarily-designed needs. When a beaver builds a dam, it doesn't ask itself why it does so, or whether there is a better way of doing it. When a swallow flies south, it doesn't wonder why it is hotter in Africa or what would happen if it flew still further south.

Humans do ask themselves these and many other kinds of questions, questions that have no relevance, indeed make little sense, in the context of evolved needs and goals. What marks out humans is our capacity to go beyond our naturally-defined goals such as the need to find food' shelter or a mate and to establish human-created goals.

Some contemporary thinkers tend to believe that there are indeed certain questions that humans are incapable of answering because of our evolved nature. Steven Pinker, for instance, argues that "Our minds evolved by natural selection to solve problems that were life-and-death matters

to our ancestors, not to commune with correctness or to answer any question we are capable of asking. We cannot hold ten thousand words in our short-term memory. We cannot see ultra-violet light. We cannot mentally rotate an object in the fourth dimension. And perhaps we cannot solve conundrums like free will and sentience.”

**Sample answer 1 (Template):**

Whereas the fundamental essence of **non-human animals** emphasizes the significance of **absorbing information**, the corresponding impacts of **asking questions** such as **generating problems** and **the immediate circumstances** are acknowledged, and **the evolutionarily-designed needs** could be inferred evidently from **humans**, which the potential implications of **the evolved needs and goals** as well as **going beyond the naturally-defined goals** are presumed. (59 words)

**Sample answer 2:**

Unlike animals that could only absorb information pre-selected by the nature, humans can ask themselves questions which are irrelevant to naturally-defined needs and goals and some people believe that humans are also incapable of answering some questions due to the evolved nature. (42 words)

### 9. Diaspora Consciousness

Diasporas — communities which live outside, but maintain links with, their homelands — are getting larger, thicker and stronger. They are the human face of globalization. Diaspora consciousness is on the rise: diasporans are becoming more interested in their origins, and organizing themselves more effectively; homelands are revising their opinions of their diasporas as the stigma attached to emigration declines, and stepping up their engagement efforts; meanwhile, host countries are witnessing more assertive diasporic groups within their own national communities, worrying about fifth columns and foreign lobbies, and suffering outbreaks of ‘diasporaphobia’.

This trend is the result of five factors, all of them connected with globalization: the growth in international migration; the revolution in transport and communications technology, which is quickening the pace of diasporans, interactions with their homelands; a reaction against global homogenized culture, which is leading people to rethink their identities; the end of the Cold War, which increased the salience of ethnicity and nationalism and created new space in which diasporas can operate; and policy changes by national governments on issues such as dual citizenship and multiculturalism, which are enabling people to lead transnational lives. Diasporas such as those attaching to China, India, Russia and Mexico are already big, but they will continue to grow; the migration flows which feed them are likely to widen and quicken in the future.



### Sample answer 1 (Template):

Whereas the fundamental essence of **Diasporas** emphasizes the significance of **the globalization**, the corresponding impacts of **the emigration declines** such as **the suffering of diasporaphobia** and **the growth in international migration** are acknowledged, and **the revolution in transport and technology** could be inferred evidently from **a reaction against globally homogenized culture**, which the potential implications of **the end of the cold war** as well as **policy changes by national governments** are presumed. (72 words)

### Sample answer 2:

The trend that diasporas are conscious about their origins and that host countries are suffering outbreaks of diasporaphobia, results from five factors related to globalization: the growth in international migration, transportation and communication technology revolution, a reaction against global homogenized culture, the end of the Cold War and policy changes by governments. (52 words)

## 10. Call for Revolutionary Thinking

We live in an ageing world. While this has been recognized for some time in developed countries, it is only recently that this phenomenon has been fully acknowledged. Global communication is “shrinking” the world, and global ageing is “maturing” it. The increasing presence of older persons in the world is making people of all ages more aware that we live in a diverse and multigenerational society. It is no longer possible to ignore ageing, regardless of whether one views it positively or negatively.

Demographers note that if current trends in ageing continue as predicted, a demographic revolution, wherein the proportions of the young and the old will undergo a historic crossover, will be felt in just three generations. This portrait of change in the world’s population parallels the magnitude of the industrial revolution – traditionally considered the most significant social and economic breakthrough in the history of humankind since the Neolithic period. It marked the beginning of a sustained movement towards modern economic growth in much the same way that globalization is today marking an unprecedented and sustained movement toward a “global culture. The demographic revolution, it is envisaged, will be at least as powerful.

While the future effects are not known, a likely scenario is one where both the challenges as well as the opportunities will emerge from a vessel into which exploration and research, dialogue and debate are poured. Challenges arise as social and economic structures try to adjust to the simultaneous phenomenon of diminishing young cohorts with rising older ones’ and opportunities present themselves in the sheer number of older individuals and the vast resources societies stand to gain from their contribution. This ageing of the population permeates all social, economic and cultural spheres. Revolutionary change calls for new, revolutionary thinking, which can position policy formulation and implementation on sounder footing. In our ageing world, new thinking requires that we view ageing as a lifelong and society-wide phenomenon, not a phenomenon exclusively pertaining to older persons.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **an aging world** emphasizes the significance of a **demographic revolution**, the corresponding impacts of **undergoing a historic crossover** such as **the challenges and opportunities** and the **economic and cultural spheres** are acknowledged, and **the industrial revolution** could be inferred evidently from **revolutionary thinking**, which the potential implications of **viewing aging as a lifelong** and **the society-wide phenomenon** are presumed. (64 words)

**Sample answer 2:**

If the fact and trend that we are living in an ageing world continues, the demographic revolution, as powerful as the industrial revolution, will bring both challenges and opportunities to the society and will be a lifelong and society wide phenomenon. (41 words)

**11. The Problem of Prediction**

As far as prediction is concerned, remember that the chairman of IBM predicted in the fifties that the world would need a maximum of around half a dozen computers, that the British Department for Education seemed to think in the eighties that we would all need to be able to code in BASIC and that in the nineties Microsoft failed to foresee the rapid growth of the Internet. Who could have predicted that one major effect of the automobile would be to bankrupt small shops across the nation? Could the early developers of the telephone have foreseen its development as a medium for person-to-person communication, rather than as a form of broadcasting medium? We all, including the 'experts' seem to be peculiarly inept at predicting the likely development of our technologies, even as far as the next year. We can, of course, try to extrapolate from experience of previous technologies, as I do below by comparing the technology of the Internet with the development of other information and communication technologies and by examining the earlier development of radio and print. But how justified I might be in doing so remains an open question. You might conceivably find the history of the British and French videotex systems, Prestel and Minitel, instructive. However, I am not entirely convinced that they are very relevant, nor do I know where you can find information about them on-line, so, rather than take up space here, I've briefly described them in a separate article.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **predicting the development of new technologies by experts** emphasizes the significance of **being peculiarly inept**, the corresponding impacts of **extrapolating from the experience** of **previous technologies** such as **comparing** and **examining the earlier developments** are acknowledged, and **the comparison** could be inferred evidently from **the development of other information**, which the potential implications of **the communication technologies** as well as **relevant information** are presumed. (69 words)



**Sample answer 2:**

We all, including expert, seem to be unlikely to predict the development of our, even recent, technologies, though you could compare them with earlier technologies and find relevant information. (29 words)

**12. Are Female Songbirds Evolution's Unsung Heroines?**

Males do the singing and females do the listening. This has been the established, even cherished view of courtship in birds, but now some ornithologists are changing tune.

Laszlo Garamszegi of the University of Antwerp, Belgium, and colleagues studied the literature on 233 European songbird species. Of the 109 for which information on females was available, they found evidence for singing in 101 species. In only eight species could the team conclude that females did not sing.

Females that sing have been overlooked, the team say because either their songs are quiet, they are mistaken for males from their similar plumage or they live in less well-studied areas such as the tropics. Garamszegi blames Charles Darwin for the oversight. "He emphasized the importance of male sexual display, and this is what everyone has been looking at."

The findings go beyond modern species. After carefully tracing back an evolutionary family tree for their songbirds, Garamszegi team discovered that, in at least two bird families, singing evolved in females first. They suggest these ancient females may have been using their songs to deter other females from their territories, to coordinate breeding activities with males, or possibly to attract mates.

"It leaves us with a perplexing question," says Garamszegi. "What evolutionary forces drove some females to give up singing?" Before people believed that male sings and female listen, traditionally studies normally focus on males as they are more important in xx areas. After examining the family tree of songbird, at least two female sings for surviving reasons.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **studying on European songbird species** emphasizes the significance of **overlooked female songbirds**, the corresponding impacts of **less well-studied areas** such as **blaming the oversight** and **the importance of male sexual display** are acknowledged, and **more traditionally studies** could be inferred evidently from **detering other females**, which the potential implications of **surviving reasons** as well as **more focusing on males in areas** are presumed. (68 words)

**Sample answer 2:**

A research done by Laszlo Garamszegi and his team shows that most female songbirds could sing and some species sing for surviving reasons and that this fact is overlooked due to Darwin's emphasis on the importance of male display. (39 words)

### 13. Country Living

Live in the country and last three years longer than my city friends? Good news indeed, more backing for a lifestyle choice made half a lifetime ago when it seemed a good idea to exchange an Edinburgh terrace for a farm cottage.

I knew it was a good idea because I had been there before. Born and reared on a farm I had been seduced for a few years by the idea of being a big shot who lived and worked in a city rather than only going for the day to wave at the buses.

True, I was familiar with some of the minor disadvantages of country living such as an iffy private water supply sometimes infiltrated by a range of flora and fauna (including, on one memorable occasion, a dead lamb), the absence of central heating in farm houses and cottages, and a single-track farm road easily blocked by snow, broken-down machinery or escaped livestock.

But there were many advantages as I told Liz back in the mid-Seventies. Town born and bred, eight months pregnant and exchanging a warm, substantial Corstorphine terrace for a windswept farm cottage on a much lower income, persuading her that country had it over town might have been difficult.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **country living** emphasizes the significance of a **farm cottage**, the corresponding impacts of a **good idea** such as **an iffy private water supply** and **being familiar with disadvantages** are acknowledged, and **blocking a single-track farm road** could be inferred evidently from **persuading a town-born and bred person**, which the potential implications of **the lack of central heating in farmhouses** as well as **being difficult** are presumed. (71 words)

#### Sample answer 2:

Although there are many advantages of country living, it is still difficult to persuade a town born and bred person to live in the country due to disadvantages and inconvenience of country living life. (34 words)

### 14. House Mice

According to new research, house mice (*Mus musculus*) are ideal biomarkers of human settlement, as they tend to stow away in crates or on ships that end up going where people go. Using mice as a proxy for human movement can add to what is already known through archaeological data and answer important questions in areas where there is a lack of artifacts, Searle said.

Where people go, so do mice, often stowing away in carts of hay or on ships. Despite a natural range of just 100 meters (109 yards) and an evolutionary base near Pakistan, the house mouse has managed to colonize every continent, which makes it a useful tool for researchers like Searle.



Previous research conducted by Searle at the University of York supported the theory that Australian mice originated in the British Isles and probably came over with convicts shipped there to colonize the continent in the late 18th and 19th centuries.

In the Viking study, he and his fellow researchers in Iceland, Denmark and Sweden took it a step further, using ancient mouse DNA collected from archaeological sites dating from the 10th to 12th centuries, as well as modern mice.

He is hoping to do just that in his next project, which involves tracking the migration of mice and other species, including plants, across the Indian Ocean, from South Asia to East Africa.

### Sample answer 1 (Template):

Whereas the fundamental essence of **the house mice** emphasizes the significance of **ideal biomarkers**, the corresponding impacts of **a proxy for human movement and settlement** such as **the archaeological data** and **a lack of artifacts** are acknowledged, and **answering important questions** could be inferred evidently from **a useful tool**, which the potential implications of **using ancient mouse DNA** as well as **the migration of other species** are presumed. (68 words)

### Sample answer 2:

Due to their nature of stowing away around humans, house mice are used by researchers as additional information sources to known archaeological data, to study human settlement and movement. (29 words)

## 15. Beauty Contest

Since Australians Jennifer Hawkins and Lauryn Eagle were crowned Miss Universe and Miss Teen International respectively, there has been a dramatic increase in interest in beauty pageants in this country. These wins have also sparked a debate as to whether beauty pageants are just harmless reminders of old-fashioned values or a throwback to the days when women were respected for how good they looked.

Opponents argue that beauty pageants, whether it's Miss Universe or Miss Teen International, are demeaning to women and out of sync with the times. They say they are nothing more than symbols of decline.

In the past few decades, Australia has taken more than a few faltering steps toward treating women with dignity and respect. Young women are being brought up knowing that they can do anything, as shown by inspiring role models in medicine such as 2003 Australian of the Year Professor Fiona Stanley.

In the 1960s and 70s, one of the first acts of the feminist movement was to picket beauty pageants on the premise that the industry promoted the view that it was acceptable to judge women on their appearance. Today many young Australian women are still profoundly uncomfortable with their body image, feeling under all kinds of pressures because they are judged by how they look.

Almost all of the pageant victors are wafer thin, reinforcing the message that thin equals beautiful. This ignores the fact that men and women come in all sizes and shapes. In a country where up to 60% of young women are on a diet at any one time and 70% of school girls say they want to lose weight, despite the fact that most have a normal BMI, such messages are profoundly hazardous to the mental health of young Australians.

**Sample answer 1 (Template):**

Whereas the fundamental essence of Australian's interest in beauty pageants emphasizes the significance of **harmless reminders of old-fashion values**, the corresponding impacts of **demeaning women** such as **symbols of decline** and **dignity and respect** are acknowledged, and **judging based on appearance** could be inferred evidently from **coming from all sizes and shapes**, which the potential implications of **hazardous messages** as well as **the mental health of young Australians** are presumed. (70 words)

**Sample answer 2:**

Opponents to beauty pageants argue that it is demeaning to women and is a symbol of decline because in the past, Australian women were treated with dignity and respect, while beauty pageants, promoted from the 1960s, seem to convey that women could be judged on their appearance. (47 words)

### 16. Comparative Advantages

With an abundance of low-priced labor relative to the United States, it is no surprise that China, India and other developing countries specialize in the production of labor-intensive products. For similar reasons, the United States will specialize in the production of goods that are human- and physical-capital intensive because of the relative abundance of a highly-educated labor force and technically sophisticated equipment in the United States.

This division of global production should yield higher global output of both types of goods than would be the case if each country attempted to produce both of these goods itself. For example, the United States would produce more expensive labor-intensive goods because of its more expensive labor and the developing countries would produce more expensive human and physical capital-intensive goods because of their relative scarcity of these inputs. This logic implies that the United States is unlikely to be a significant global competitor in the production green technologies that are not relatively intensive in human and physical capital.

Nevertheless, during the early stages of the development of a new technology, the United States has a comparative advantage in the production of the products enabled by this innovation. However, once these technologies become well-understood and production processes are designed that can make use of less-skilled labor, production will migrate to countries with less expensive labor.



### Sample answer 1 (Template):

Whereas the fundamental essence of the **American's low-priced labor** emphasizes the significance of **developing countries**, the corresponding impacts of **the labor-intensive goods**, such as **human-and physical-capital intensive** and **not being a significant global competitor** are acknowledged, and **producing green technologies** could be inferred evidently from **having a comparative advantage**, which the potential implications of **less-skilled labor** as well as a **high-educated labor force** are presumed. (65 words)

### Sample answer 2:

Although some developing countries, such as China, become competent in the production green industries because they have a comparative advantage over the United States, in producing labor intensive goods due to the relatively lower-priced labor, the United States still has a comparative advantage enabled by innovation in the production at the early stage of the development of a new technology. (60 words)

## 17. Nobel Peace Prize

This year's Nobel Peace Prize justly rewards the thousands of scientists of the United Nations Climate Change Panel (the IPCC). These scientists are engaged in excellent, painstaking work that establishes exactly what the world should expect from climate change.

The other award winner, former US Vice President Al Gore, has spent much more time telling us what to fear. While the IPCC's estimates and conclusions are grounded in careful study, Gore doesn't seem to be similarly restrained.

Gore told the world in his Academy Award-winning movie (recently labeled "one-sided" and containing "scientific errors" by a British judge) to expect 20-foot sea-level rises over this century. He ignores the findings of his Nobel co-winners, the IPCC, who conclude that sea levels will rise between only a half-foot and two feet over this century, with their best expectation being about one foot. That's similar to what the world experienced over the past 150 years.

Likewise, Gore agonizes over the accelerated melting of ice in Greenland and what it means for the planet, but overlooks the IPCC's conclusion that, if sustained, the current rate of melting would add just three inches to the sea level rise by the end of the century. Gore also takes no notice of research showing that Greenland's temperatures were higher in 1941 than they are today.

Gore also frets about the future of polar bears. He calms they are drowning as their icy habitat disappears. However, the only scientific study showing any such thing indicates that four polar bears drowned because of a storm.

The politician-turned-movie maker loses sleep over a predicted rise in heat-related deaths. There's another side of the story that's inconvenient to mention: rising temperatures will reduce the number of cold spells, which are a much bigger killer than heat. The best study shows that by 2050, heat will claim 400'000 more lives, but 1.8 million fewer will die because of cold.

Indeed, according to the first complete survey of the economic effects of climate change for the world, global warming will actually save lives.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the Nobel peace prize** emphasizes the significance of **the IPCC**, the corresponding impacts of **another award winner** such as **accelerated melting of ice** and **sea-level rises** are acknowledged, and **polar bears** could be inferred evidently from **rising temperatures**, which the potential implications of **the economic effects of climate change** as well as **saving lives by global warming** are presumed. (64 words)

**Sample answer 2:**

Al Gore, in his award-winning movie, expresses his fear about sea-level rises over this century, the accelerated melting of ice in Greenland, the future of polar bears predicted rise in heat-related deaths and these concerns go against scientific studies done by his co-winner of this year's Nobel Peace Prize, the IPCC. (51 words)

### 18. Parent's Birth Order Affects Their Parenting

Parent's own birth order can become an issue when dynamics in the family they are raising replicate the family in which they were raised. Agati notes common examples, such as a firstborn parent getting into "raging battle" with a firstborn child. "Both are used to getting the last word. Each has to be right. But the parent has to be the grown-up and step out of that battle," he advises. When youngest children become parents, Agati cautions that because they "may not have had high expectations placed on them, they, in turn, may not see their kids for their abilities."

But he also notes that since youngest children tend to be more social, youngest parents can be helpful to their firstborn, who may have a harder time with social situations. These parents can help their eldest kids loosen up and not be so hard on themselves. Mom Susan Ritz says her own birth order didn't seem to affect her parenting until the youngest of her three children, Julie, was born. Julie was nine years younger than Ritz's oldest, Joshua, mirroring the age difference between Susan and her own older brother. "I would see Joshua do to Julie what my brother did to me," she says of the taunting and teasing by a much older sibling.

"I had to try not to always take Julie's side." Biases can surface no matter what your own birth position was, as Lori Silverstone points out. "M a middle myself, I can be harder on my older daughter. I recall my older sister hitting me," she says of her reactions to her daughters, tussles. "My husband is a firstborn. He's always sticking up for the oldest. He feels bad for her that the others came so fast. He helps me to see what that feels like, to have that attention and then lose it." Silverstone sees birth-order triggers as "an opportunity to heal parts of ourselves. I've learned to teach my middle daughter to stand up for herself. My mother didn't teach me that. I'm conscious of giving my middle daughter tools so she has a nice way to protect herself."

Whether or not you subscribe to theories that birth order can affect your child's personality, ultimately, "we all have free will," Agati notes. It's important for both parents and kids to



realize that, despite the characteristics often associated with birth order, “you’re not locked into any role.”

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the parental birth order** emphasizes the significance of **dynamics in the family**, the corresponding impacts of **replicating** such as **the raging battle** and **high expectations** are acknowledged, and **social situations** could be inferred evidently from **the free will**, which the potential implications of **affecting children’s personality** as well as **not locking into any roles** are presumed. (61 words)

**Sample answer 2:**

Despite the theory that parents' own birth order can affect their parenting, and that parents usually replicate the family in which they were raised, both parents and children have free will to build up their own personality and characteristics. (39 words)

**19. Napping (1)**

A large new study has found that people who regularly took a siesta were significantly less likely to die of heart disease.

“Taking a nap could turn out to be an important weapon in the fight against coronary mortality,” said Dimitrios Trichopoulos of the Harvard School of Public Health in Boston, who led the study published yesterday in the Archives of Internal Medicine.

The study of more than 23,000 Greek adults the biggest and best examination of the subject to date — found that those who regularly took a midday siesta were more than 30 percent less likely to die of heart disease.

Other experts said the results are intriguing. Heart disease kills more than 650,000 Americans each year, making it the nation’s No. 1 cause of death.

“It’s interesting. A little siesta, a little snooze may be beneficial,” said Gerald Fletcher, a cardiologist at the Mayo Clinic in Jacksonville, Fla., speaking on behalf of the American Heart Association. “It’s simple, but it has a lot of promise.”

While more research is needed to confirm and explore the findings, there are several ways napping could reduce the risk of heart attacks, experts said.

“Napping may help deal with the stress of daily living,” said Michael Twery, who directs the National Heart Lung and Blood Institute’s National Center on Sleep Disorders Research.

“Another possibility is that it is part of the normal biological rhythm of daily living. The biological clock that drives sleep and wakefulness has two cycles each day, and one of them dips usually in the early afternoon. It’s possible that not engaging in napping for some people might disrupt these processes.”

Researchers have long known that countries such as Greece’ Italy and Spain’ where people commonly take siestas’ have lower rates of heart disease than would be expected. But previous studies that attempted to study the relationship between naps and heart disease have produced

mixed results. The new study is first to try to fully account for factors that might confuse the findings' such as physical activity' diet and other illnesses.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **taking a siesta** emphasizes the significance of **an important weapon**, the corresponding impacts of **fighting against mortality** such as **napping** and **reducing the risk of heart attacks** are acknowledged, and **dealing with the daily stress** could be inferred evidently from **the normal biological rhythm**, which the potential implications of **the relationship between naps and heart disease** as well as **mixed results** are presumed. (68 words)

**Sample answer 2:**

Although more research is needed, some studies show that a regular midday siesta could reduce the probability of death caused by heart disease, by helping to deal with stress and biological rhythm of daily living. (35 words)

## 20. Tree Ring Dating – Dendrochronology (1)

Here's how tree-ring dating, known to scientists as dendrochronology (from the Greek roots Dendron = tree, and Chronos = time), works. If you cut a tree down today, it's straightforward to count the rings inwards, starting from the tree's outside (corresponding to this year's growth ring), and thereby to state that the 177th ring from the outermost one towards the center was laid down in the year 2005 minus 177, or 1828. However, the widths of tree growth rings vary from year to year, depending on the rain or drought conditions in each year.

Hence the sequence of the rings in a tree cross-section is like a message in Morse code formerly used for sending telegraph messages; dot-dot-dash-dot-dash in the Morse code' wide-wide-narrow-wide-narrow in the tree ring sequence. Actually' the tree ring sequence is even more diagnostic and richer in information than the Morse code' because trees actually contain rings spanning many different widths' rather than the Morse code choice between dot and dash.

Tree-ring specialists (known as dendrochronologists) proceed by noting the sequence of wider and narrower rings in a tree cut down in a known recent year, and also noting the sequences in beams from trees cut down at various times in the past. They then match up and align the tree ring sequences with the same diagnostic wide/narrow patterns from different beams.

In that way, dendrochronologists have constructed tree-ring records extending back for thousands of years in some parts of the world. Each record is valid for a geographic area whose extent depends on local weather patterns because weather and hence tree growth patterns vary with location.

A bonus of dendrochronology is that the width and substructure of each ring reflect the amount of rain and the season at which the rain fell during that particular year. Thus, tree ring studies also allow one to reconstruct the past climate, e.g., a series of wide rings means a very wet period, and a series of narrow rings means a drought.



**Sample answer 1 (Template):**

Whereas the fundamental essence of **tree-ring dating** emphasizes the significance of **the dendrochronology**, the corresponding impacts of **rain or drought conditions** and **being diagnostic** are acknowledged, and **the sequence of wider and narrower rings** could be inferred evidently from **a geographic area**, which the potential implications of **local weather patterns** as well as **reconstructing the past climate** are presumed. (59 words)

**Sample answer 2:**

Dendrochronology is a scientific method of dating based on the construction and analysis of patterns of tree rings and it can help to reconstruct the past climate for a geographic area. (31 words)

21. The Khoikhoi

San, people of southern Africa, consisting of several groups and numbering over 85,000 in all. They are generally short in stature; their skin is yellowish brown in color, and they feature prominent cheekbones. The San have been called Bushmen by whites in South Africa, but the term is now considered derogatory. Although many now work for white settlers, about half are still nomadic hunters and gatherers of wild food in desolate areas like the Kalahari semi-desert, which stretches between today's Nation States of Botswana, Namibia and South Africa. Their social unit is the small hunting band; larger organizations are loose and temporary. Grass huts, caves and rock shelters are used as dwellings. They possess only what they can carry, using poisoned arrowheads to fell game and transporting water in ostrich-egg shells. The San have a rich folklore, are skilled in drawing, and have a remarkably complex language characterized by the use of click sounds, related to that of the Khoikhoi. For thousands of years the San lived in southern and central Africa, but by the time of the Portuguese arrival in the 15th cent., they had already been forced into the interior of southern Africa. In the 18th and 19th cent., they resisted the encroachment on their lands of Dutch settlers, but by 1862 that resistance had been crushed.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the San** emphasizes the significance of **being short in stature**, the corresponding impacts of **having yellowish brown skin** such as **featuring prominent cheekbones** and **the nomadic hunters and gatherers of wild food** are acknowledged, and **rich folklore** could be inferred evidently from **dwellings**, which the potential implications of **being skillful in drawing** as well as **the Khoikhoi** are presumed. (64 words)

\*being derogatory

\*the social unit

**Sample answer 2:**

San, short Southern African people with yellowish brown skin color and prominent cheekbones, are living in primitive ways and small hunting bands previously lived in southern and central Africa. (29 words)

**22. Computer Programming**

Consider the current situation: Like their counterparts in the United States, engineers and technicians in India have the capacity to provide both computer programming and innovative new technologies. Indian programmers and high-tech engineers earn one-quarter of what their counterparts earn in the United States. Consequently, India is able to do both jobs at a lower dollar cost than the United States: India has an absolute advantage in both. In other words, it can produce a unit of programming for fewer dollars than the United States, and it can also produce a unit of technology innovation for fewer dollars. Does that mean that the United States will lose not only programming jobs but innovative technology jobs, too? Does that mean that our standard of living will fall if the United States and India engage in international trade?

David Ricardo would have answered no to both questions—as we do today. While India may have an absolute advantage in both activities, that fact is irrelevant in determining what India or the United States will produce. India has a comparative advantage in doing programming in part because such activity requires little physical capital. The flip side is that the United States has a comparative advantage in technology innovation partly because it is relatively easy to obtain capital in this country to undertake such long-run projects. The result is that Indian programmers will do more and more of what U.S. programmers have been doing in the past. In contrast, American firms shift to more and more innovation. The United States will specialize in technology innovation; India in programming. The business managers in each country will opt to specialize in activities in which they have a comparative advantage. As in the past, the U.S. economy will continue to concentrate on what are called the “most best” activities.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the United States and India** emphasizes the significance of **computer programming**, the corresponding impacts of **the technology innovation** such as **a lower dollar costs** and **a comparative advantage** are acknowledged, and **obtaining easily American’s capital** could be inferred evidently from **the long-run projects**, which the potential implications of **the U.S. economy** as well as **the best activities** are presumed. (64 words)

**Sample answer 2:**

What a country will engage in international trade depends on its comparative advantage, so India will do more computer programming due to its comparative disadvantage of obtaining physical capital while the United State will engage in capital-intensive technology innovation, though India can do both at lower costs. (47 words)



### 23. Tourism Industry

Jobs generated by Travel & Tourism are spread across the economy - in retail, construction, manufacturing and telecommunications, as well as directly in Travel & Tourism companies. These jobs employ a large proportion of women, minorities and young people; are predominantly in small and medium sized companies; and offer good training and transferability. Tourism can also be one of the most effective drivers for the development of regional economies. These patterns apply to both developed and emerging economies.

There are numerous good examples of where Travel & Tourism is acting as a catalyst for conservation and improvement of the environment and maintenance of local diversity and culture. Travel & Tourism creates jobs and wealth and has tremendous potential to contribute to economically, environmentally and socially sustainable development in both developed countries and emerging nations. It has a comparative advantage in that its start up and running costs can be low compared to many other forms of industry development is also often one of the few realistic options for development in many areas. Therefore, there is a strong likelihood that the Travel & Tourism industry will continue to grow globally over the short to medium term.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **generating jobs by Travel & Tourism** emphasizes the significance of **offering good training and transferability**, the corresponding impacts of **effective drivers** such as **the development of regional economies** and **conserving the environment** are acknowledged, and **the maintenance of local diversity and culture** could be inferred evidently from **a comparative advantage**, which the potential implications of **low starting and running costs** as well as **growing globally** are presumed. (72 words)

#### Sample answer 2:

Travel and tourism industry improves the development of regional economies and maintenance of the environment and culture and it will continue to grow in the short to medium term because of its comparatively low starting and running costs. (38 words)

### 24. Theory of Resonance

The history of marketers seeking the advice of physicists is a short one, but an understanding of the Theory of Resonance may give communications experts the edge. Resonance Theory explains the curious phenomenon of how very small pebbles dropped into a pond can create bigger waves than a large brick. The brick makes a decent splash but its ripples peter out quickly. A tiny pebble dropped into the same pond, followed by another then another, then another, all timed carefully, will create ripples that build into small waves.

As Dr. Carlo Contaldi, a physicist at Imperial College London, explains, a small amount of energy committed at just the right intervals - the 'natural frequency' - creates a cumulatively large effect.

Media consultant Paul Bay believes that just as with pebbles in a pond, a carefully choreographed and meticulously timed stream of communication will have a more lasting effect than a sporadic big splash during prime time TV breaks.

Innocent is testament to the power of pebbles. Until last year, the maker of smoothies had never advertised on TV, instead drip-feeding the market with endless ingenious marketing ploys - from annotating its drinks labels with quirky messages to hosing its own music festival, Fruitstock. The company sent a constant stream of messages rather than communicating through the occasional big and expensive noise.

So whether you are trying to make waves in the laboratory or in the media, the people in white coats would advise a little and often. A big budget not the prerequisite of success.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the Theory of Resonance** emphasizes the significance of **the curious phenomenon**, the corresponding impacts of **dropping small pebbles into a pond** such as **the natural frequency** and **cumulatively large effects** are acknowledged, and the **meticulously timed stream of communication** could be inferred evidently from **a more lasting effect**, which the potential implications of **little waves** as well as **big budgets** are presumed. (67 words)

**Sample answer 2:**

Resonance theory, which explains that very small pebbles dropped into a pond can create bigger waves than a large brick, could also be applied to media and a carefully choreographed and meticulously timed stream of communication will create a more cumulative and lasting effect than a big occasional propaganda. (49 words)

**25. Anti-Bullying Project**

Spurred by the sense that disorderly behavior among students in South Euclid was increasing, the school resource officer (SRO) reviewed data regarding referrals to the principal's office. He found that the high school reported thousands of referrals a year for bullying and that the junior high school had recently experienced a 30 percent increase in bullying referrals. Police data showed that juvenile complaints about disturbances, bullying, and assaults after school hours had increased 90 percent in the past 10 years.

A researcher from Kent State University (Ohio) conducted a survey of all students attending the junior high and high school. Interviews and focus groups were conducted with students—identified as victims or offenders— teachers, and guidance counselors. Finally, the South Euclid Police Department purchased a Geographic Information System to conduct crime incident mapping of hotspots within the schools. The main findings pointed to four primary areas of concern: the environmental design of the school; teacher knowledge of and response to the problem; parental attitudes and responses; and student perspectives and behaviors.

The SRO worked in close collaboration with a social worker and the university researcher. They coordinated a Response Planning Team comprising many stakeholders that was intended



to respond to each of the areas identified in the initial analysis. Environmental changes included modifying the school schedule and increasing teacher supervision of hotspots. Counsellors and social workers conducted teacher training courses in conflict resolution and bullying prevention. Parent education included mailings with information about bullying, an explanation of the new school policy, and a discussion about what could be done at home to address the problems. Finally, student education included classroom discussions between homeroom teachers and students, as well as assemblies conducted by the SRO. The SRO also opened a substation next to a primary hotspot. The Ohio Department of Education contributed by opening a new training center to provide a non-traditional setting for specialized help. The results from the various responses were dramatic. School suspensions decreased 40 percent. Bullying incidents dropped 60 percent in the hallways and 80 percent in the gym area. Follow-up surveys indicated that there were positive attitudinal changes among students about bullying and that more students felt confident that teachers would take action when a problem arose. Teachers indicated that training sessions were helpful and that they were more likely to talk about bullying as a serious issue. Parents responded positively, asking for more information about the problem in future mailings. The overall results suggest that the school environments were not only safer, but that early intervention was helping at-risk students succeed in school.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **increasing disorderly behavior** emphasizes the significance of **the school resource officer**, the corresponding impacts of **bullying referrals** such as **a geographic information system** and **conducting crime incident mapping of hotspots** are acknowledged, and **four primary areas of concern** could be inferred evidently from **the environmental changes**, which the potential implications of **opening a new training center** as well as **dramatic results** are presumed. (68 words)

**Sample answer 2:**

The school resource officer coordinated a Response Planning Team to respond to major concerns about disorderly behavior among students and the results for each concern were dramatically positive. (28 words)

**26. War of Talent – The Demand for Talent**

Some of this panic is overdone—and linked to the business cycle: there was much ado about “a war for talent” in America in the 1990s, until the dotcom bubble burst. People often talk about shortages when they should really be discussing price. Eventually, supply will rise to meet demand and the market will adjust. But, while you wait, your firm might go bust. For the evidence is that the talent shortage is likely to get worse.

Nobody really disputes the idea that the demand for talent-intensive skills is rising. The value of “intangible” assets—everything from skilled workers to patents to know-how—has ballooned from 20% of the value of companies in the S&P 500 to 70% today. The proportion

of American workers doing jobs that call for complex skills has grown three times as fast as employment in general. As other economies move in the same direction, the global demand is rising quickly.

As for supply, the picture in much of the developed world is haunted by demography. By 2025 the number of people aged 15-64 is projected to fall by 7% in Germany' 9% in Italy and 14% in Japan. Even in still growing America, the imminent retirement of the baby-boomers means that companies will lose large numbers of experienced workers in a short space of time (by one count half the top people at America's 500 leading companies will go in the next five years). Meanwhile, two things are making it much harder for companies to adjust.

The first is the collapse of loyalty. Companies happily chopped out layers of managers during the 1990s; now people are likely to repay them by moving to the highest bidder. The second is the mismatch between what schools are producing and what companies need. In most Western countries, schools are churning out too few scientists and engineers—and far too many people who lack the skills to work in a modern economy (that is why there are talent shortages at the top alongside structural unemployment for the low-skilled).

### Sample answer 1 (Template):

Whereas the fundamental essence of **a war of talent** emphasizes the significance of **the talent shortage**, the corresponding impacts of **the talent-intensive skills** such as **the global demand** are acknowledged, and **the imminent retirement of baby-boomers** could be inferred evidently from **losing numbers of experienced workers**, which the potential implications of **the mismatch between schools' production and companies' need** as well as **the structural unemployment** are presumed. (67 words)

### Sample answer 2:

Talent shortage is likely to get worse globally in the future because of the imminent retirement of baby-boomers, the collapse of loyalty and the mismatch between what schools are producing and what companies need. (34 words)

### 27. Marshmallow Test

They call it the “marshmallow test.” A four- to six-year-old-child sits alone in a room at a table facing a marshmallow on a plate. The child is told: “If you don't eat this treat for 15 minutes you can have both it and a second one.” Kids on average wait for five or six minutes before eating the marshmallow. The longer a child can resist the treat has been correlated with higher general competency later in life.

Now a study shows that ability to resist temptation isn't strictly innate—it's also highly influenced by environment.

Researchers gave five-year-olds used crayons and one sticker to decorate a sheet of paper. One group was promised a new set of art supplies for the project—but then never received it. But the other group did receive new crayons and better stickers.



Then both groups were given the marshmallow test. The children who had been lied to waited for a mean time of three minutes before eating the marshmallow. The group that got their promised materials resisted an average of 12 minutes.

Thus, the researchers note that experience factors into a child's ability to delay gratification. When previous promises have been hollow, why believe the next one?

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the Marshmallow test** emphasizes the significance of **the longer resistance**, the corresponding impacts of **a higher general competency** such as **the innate ability** are acknowledged, and **temptation** could be inferred evidently from **being influenced by the environment**, which the potential implications of **the experience** as well as **children's ability in delaying gratification** one are presumed. (60 words)

**Sample answer 2:**

A study shows that children's ability to resist temptation is highly influenced by experiences and that children who get their promises before could delay gratification longer. (26 words)

## 28. Crisis in British Archaeology

Human remains are a fundamental part of the archaeological record, offering unique insights into the lives of individuals and populations in the past. Recently a new set of challenges to the study of human remains has emerged from a rather unexpected direction: the British government revised its interpretation of nineteenth-century burial legislation in a way that would drastically curtail the ability of archaeologists to study human remains of any age excavated in England and Wales. This paper examines these extraordinary events and the legal, political and ethical questions that they raise.

In April 2008 the British government announced that, henceforth, all human remains archaeologically excavated in England and Wales should be reburied after a two-year period of scientific analysis. Not only would internationally important prehistoric remains have to be returned to the ground, removing them from public view, but also there would no longer be any possibility of long-term scientific investigation as new techniques and methods emerged and developed in the future. Thus, while faunal remains, potsherds, artifacts and environmental samples could be analyzed and re-analyzed in future years, human remains were to be effectively removed from the curation process. Archaeologists and other scientists were also concerned that this might be the first step towards a policy of reburying all human remains held in museum collections in England and Wales including prehistoric, Roman, Saxon, Viking and Medieval as well as more recent remains.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **human remains** emphasizes the significance of **the archaeological record**, the corresponding impacts of **the British government** such as **revising the burial legislation** and **curtailing the ability of studying** are acknowledged, and

**the long-term scientific investigation** could be inferred evidently from **removing from public view**, which the potential implications of **emerging new techniques and methods** as well as **a policy of reburying all human remains** are presumed. (71 words)

**Sample answer 2:**

The British government's announcement that all human remains archaeologically excavated in England and Wales need reburying, will negatively affect the study of human remains. (24 words)

### 29. Geothermal Energy in Africa

What is the solution for nations with increasing energy demands, hindered by frequent power cuts and an inability to compete in the international oil market? For East Africa at least, experts think geothermal energy is the answer. More promising still, the Kenyan government and international investors seem to be listening. This is just in time according to many, as claims of an acute energy crisis are afoot due to high oil prices, population spikes and droughts.

Currently, over 60% of Kenya's power comes from hydroelectric sources but these are proving increasingly unreliable as the issue of seasonal variation is intensified by erratic rain patterns. Alternative energy sources are needed; and the leading energy supplier in Kenya, Kenya Electricity Generating Company (KenGen), hopes to expand its geothermal energy supply from 13% to 25 % of its total usage by 2020. The potential of geothermal energy in the region was first realized internationally by the United Nations Development Program, when geologists observed thermal anomalies below the East African Rift system. Locals have been utilizing this resource for centuries; using steam vents to create the perfect humidity for greenhouses, or simply to enjoy a swim in the many natural hot lakes.

Along the 6000 km of the rift from the Red Sea to Mozambique, geochemical, geophysical and heat flow measurements were made to identify areas suitable for geothermal wells. One area lies next to the extinct Olkaria volcano, within the Hell's Gate National Park, and sits over some of the thinnest continental crust on Earth. This is a result of the thinning of the crust by tectonic stretching, causing hotter material below the Earth's surface to rise, resulting in higher temperatures. This thin crust was ideal for the drilling of geothermal wells' reaching depths of around 3000 m, where temperatures get up to 342°C, far higher than the usual temperature of 90°C at this depth. Water in the surrounding rocks is converted to steam by the heat. The steam can be used to drive turbines and produce electricity. Wells like those in Olkarla operate by pumping cold water down to permeable "geothermal reservoir" rocks, causing steam to rise back up a nearby production well. Care must be taken with the rate at which cold water is added so as to not permanently cool the source rock.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **East Africa** emphasizes the significance of **the geothermal energy**, the corresponding impacts of **an acute energy crisis** such as **the erratic rain patterns** and **observing thermal anomalies** are acknowledged, and **identifying suitable**



**areas** could be inferred evidently from **geothermal wells**, which the potential implications of **producing electricity** as well as **higher temperatures** are presumed. (59 words)

**Sample answer 2:**

Geothermal energy will be used as alternative electric sources to meet increasing energy demands in East African countries due to the geological advantages, thermal anomalies below the East African Rift system. (31 words)

### 30. Language Development

What is text/written language anyway? It's an ancient IT for storing and retrieving information. We store information by writing it, and we retrieve it by reading it.

Six thousand to 10,000 years ago, many of our ancestors' hunter-gatherer societies settled on the land and began what's known as the agricultural revolution. That new land settlement led to private property and increased production and trade of goods, generating a huge new influx of information. Unable to keep all this information in their memories, our ancestors created systems of written records that evolved over millennia into today's written languages.

But this ancient IT is already becoming obsolete. Text has run its historic course and is now rapidly getting replaced in every area of our lives by the ever-increasing array of emerging ITs driven by voice, video, and body movement rather than the written word. In my view, this is a positive step forward in the evolution of human technology, and it carries great potential for a total positive redesign of K-12 education.

**Sample answer 1 (Template):**

Whereas the fundamental essence of a **written language** emphasizes the significance of an **ancient IT**, the corresponding impacts of **storing and retrieving information** such as **ancestor's hunter-gatherer societies** and **creating systems of written records** are acknowledged, and **becoming obsolete** could be inferred evidently from **replacing with emerging ITs**, which the potential implications of **the evolution of human technology** as well as a **positive redesign of K-12 education** are presumed. (69 words)

\*the agricultural revolution

\*a great potential

**Sample answer 2:**

Written language, which can be defined as an ancient method of storing and retrieving information, is quickly replaced by the modern information technologies, which involve more audio, visual or kinetic elements, and the writer consider this as a positive movement. (40 words)

### 31. Greenhouse Gases

When an individual drives a car, heats a house, or uses an aerosol hairspray, greenhouse gases are produced. In economic terms, this creates a classic negative externality. Most of the costs (in this case, those arising from global warming) are borne by individuals other than the one making the decision about how many miles to drive or how much hairspray to use. Because the driver (or sprayer) enjoys all the benefits of the activity but suffers only a part of the cost, that individual engages in more than the economically efficient amount of the activity. In this sense, the problem of greenhouse gases parallels the problems that occur when someone smokes a cigarette in an enclosed space or litters the countryside with fast-food wrappers. If we are to get individuals to reduce production of greenhouse gases to the efficient rate, we must somehow induce them to act as though they bear all the costs of their actions. The two most widely accepted means of doing this are government regulation and taxation, both of which have been proposed to deal with greenhouse gases.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **greenhouse gases** emphasizes the significance of **economic terms**, the corresponding impacts of **a classic negative externality** such as **costs of global warming** and **bearing by individuals** are acknowledged, and **reducing production of such gases** could be inferred evidently from **the efficient rate**, which the potential implications of **inducing individuals** as well as **the government regulation and taxation** are presumed. (64 words)

#### Sample answer 2:

Greenhouse gasses are produced in our daily activities and could create negative externality, which means that most of the cost behind these actions are shouldered by a vast majority of innocent people, and therefore such behaviors can only be regulated through government regulation and taxation. (45 words)

### 32. Australian Indigenous Food

In its periodic quest for culinary identity, Australia automatically looks to its indigenous ingredients, the foods that are native to this country. “There can be little doubt that using an indigenous product must qualify a dish as Australian”, notes Stephanie Alexander. Similarly, and without qualification, Cherikoff states that “A uniquely Australian food culture can only be based upon foods indigenous to this country”, although, as Craw remarks, proposing Australian native foods as national symbols rely more upon their association with ‘nature’ and geographic origin than on common usage. Notwithstanding the lack of justification for the premise that national dishes are, of necessity, founded on ingredients native to the country—after all, Italy’s gastronomic identity is tied to the non-indigenous tomato, Thailand’s to the non-indigenous chili—the reality is that Australians do not eat indigenous foods in significant quantities. The exceptions are fish, crustaceans and shellfish from oceans, rivers and lakes, most of which are unarguably unique to this country. Despite valiant and well-intentioned



efforts today at promoting and encouraging the consumption of native resources, bush foods are not harvested or produced in sufficient quantities for them to be a standard component of Australian diets, nor are they generally accessible. Indigenous foods are less relevant to Australian identity today than lamb and passionfruit, both initially imported and now naturalized.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **indigenous ingredients** emphasizes the significance of **Australian food culture**, the corresponding impacts of **an association with nature** such as **the geographic origin** and **the common usage** are acknowledged, and **encouraging the consumption of native resources** could be inferred evidently from **not sufficient quantities of bush foods**, which the potential implications of **not being accessible** as well as **less related to Australian identity** are presumed. (69 words)

**Sample answer 2:**

Despite the effort to associate traditional Australian food ingredients with national diets, it is impossible to make such link because those indigenous food are produced and consumed in insufficient quantities, and in fact imported foods are much more representative of what the nation eats. (44 words)

### 33. Upper Paleolithic People

The ways of life of Upper Paleolithic people are known through the remains of meals scattered around their hearths, together with many tools and weapons and the debris left over from their making. The people were hunter-gatherers who lived exclusively from what they could find in nature without practicing either agriculture or herding. They hunted the bigger herbivores, while berries, leaves, roots, wild fruit and mushrooms probably played a major role in their diet. Their hunting was indiscriminate, perhaps because so many animals were about that they did not need to spare pregnant females or the young. In the cave of Enlène, for example, many bones of reindeer and bison fetuses were found. Apparently, Upper Paleolithic people hunted like other predators and killed the weakest prey first. They did, however, sometimes concentrate on salmon runs and migrating herds of reindeer.

Contrary to popular beliefs about 'cave men', Upper Paleolithic people did not live deep inside caves. They rather chose the foot of cliffs, especially when an overhang provided good shelter. On the plains and in the valleys, they used tents made from hides of the animals they killed. At times, on the Great Russian plains, they built huts with huge bones and tusks collected from the skeletons of mammoths.

(Men hunted mostly with spears; the bow and arrow was probably not invented until the Magdalenian period that came at the end of the Upper Paleolithic. Tools and weapons, made out of wood or reindeer antlers, often had flint cutting edges. Flint knappers were skillful and traditions in flint knapping were pursued for thousands of years. This continuity means that they must have been carefully taught how to find good flint nodules and how to knap them in

order to make knives, burins (chisel-like tools) or scrapers, which could be used for various purposes.)

**Sample answer 1 (Template):**

Whereas the fundamental essence of **Upper Paleolithic people** emphasizes the significance of **hunter-gatherers**, the corresponding impacts of **their diet** such as **the indiscriminate hunting** and **not living deep inside caves** are acknowledged, and **spears** could be inferred evidently from **tools and weapons**, which the potential implications of **being skillful in flint knapping** as well as **making chisel-like tools** are presumed. (60 words)

**Sample answer 2:**

Upper Paleolithic People are hunter-gathers who, by definition, lived exclusively from what they could find in nature without practicing either agriculture or herding, and instead of living deep inside in caves, they live in the tents made from the animals they hunted. (42 words)

**34. Wright Brothers (v1)**

Orville and Wilbur Wright were brothers living in Dayton, Ohio. The two had started making bicycles during the 1890s and had a successful small business selling their Wright Specials for \$18 each (\$475 in today's green). This experience with building light, strong machines would prove valuable in the coming years after the brothers' interest turned to flight.

Others in the United States were also developing aircraft at the time the Wright brothers started turning their curiosity skyward. Samuel Langley had flown an unmanned steam-powered aircraft in 1896. Octave Chanute and others were flying gliders near Chicago late in the decade as well. But it wasn't until the Wright brothers started working on the matter that the "flying problem" would finally be solved.

Beginning in 1899, the brothers designed and built a series of gliders to test their various ideas on a flying machine. They constructed a wind tunnel that allowed them to test designs without having to build a full-size model. They even built their own gasoline-powered motor for their aircraft.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **Wright brothers** emphasizes the significance of **making bicycles**, the corresponding impacts of **the flight** such as **developing aircraft in the US** and **the curiosity skyward** are acknowledged, and **solving the flying problem** could be inferred evidently from **building a series of gliders**, which the potential implications of **testing various ideas** as well as **constructing a wind tunnel and their gasoline-powered motor** are presumed. (68 words)

**Sample answer 2:**

Although Wright brothers had a successful business of making and selling bicycles, their curiosity later led them to designing and building a series of gliders for testing ideas on a flying



machine which ultimately solved the “flying problem”, and for this to achieve, they constructed a wind tunnel which allowed them to test designs without the need to build full-scale model as well as a gasoline-powered motor for their aircraft. (70 words)

### 35. Compulsory Voting

Compulsory voting is often suggested as a solution to the problem of declining turnout. But how are individuals and countries affected by compulsory voting beyond boosting electoral participation? Shane Singh investigates the social, economic, and political consequences of compelling citizens to vote.

There has been a lot of discussion about compulsory voting these days. In the United Kingdom, in particular, as voter turnout rates have declined, many commentators and politicians have begun advocating for mandatory electoral participation. Those in favor of compulsory voting often adduce the importance of participation among all segments of society. Citizens of democracies are forced to do many things in the interest of the public good, they maintain, including serving on juries and educating their children, and full participation serves the country as a whole. Those opposed to compulsory voting often argue that, from a democratic theory perspective, the right to vote implicitly includes a right not to vote.

Such a right of abstention, they argue, is more important than any societal good that might accompany high turnout. In fact, opponents of compulsory voting often contend that the country may be better off if those who are disinclined to vote are not pushed to participate in public affairs. Regardless of whether one of these sets of arguments is more persuasive than the other, compulsory voting is commonly used around the world. Several European democracies mandate voting, as do Australia and most of the countries in Latin America. By evaluating results from these countries, it is possible to assess the mechanics and effects of compulsory voting.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **compulsory voting** emphasizes the significance of **advocating for mandatory electoral participation**, the corresponding impacts of **adducing the significance of participation** such as **the interest of the public** and **serving on juries** are acknowledged, and **educating children** could be inferred evidently from **a democratic theory perspective**, which the potential implications of **a right of abstention** as well as **the mechanics and effects of such voting** are presumed. (71 words)

#### Sample answer 2:

Although compulsory voting is a suggested solution to the problem of declining turnouts, those who opposed to it often argue that the right to vote implicitly include the right of abstention which is more important than any societal good that might accompany high turnout, however, it is possible to assess the mechanics and effects of compulsory voting by evaluation of results from several European countries and Australia that mandate voting. (70 words)

### 36. Skipping Breakfast

Skipping breakfast seems a simple way of losing weight or saving time while getting the children ready for school or rushing off to work. But it can also be a sign of an unhealthy lifestyle with potentially dangerous consequences, including a higher risk of premature death. According to a study, adults and teenagers who miss the first meal of the day are less likely to look after their health. They tend to smoke more, drink more alcohol and take less exercise than those who do eat. Those who skip food in the morning are also more likely to be fatter and less well-educated, meaning they find it harder to get a job.

Researcher Dr. Anna Keski-Rahkonen said: “Smoking, infrequent exercise, a low level of education, frequent alcohol use and a high body mass index were all associated with skipping breakfast in adults and adolescents. Our findings suggest this association exists throughout adulthood. ‘Individuals who skip breakfast may care less about their health than those who eat breakfast.’”

Previously, experts assumed that missing breakfast — often called ‘the most important meal of the day’ — was simply the marker of a hectic life or a way to try to lose weight. But Dr. Keski-Rahkonen, who led the study at Helsinki University, said the results revealed starting the day without food suggests an unhealthy lifestyle.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **skipping breakfast** emphasizes the significance of a **sign of an unhealthy lifestyle**, the corresponding impacts of **potentially dangerous consequences** such as a **higher risk of early death** and **less caring about health** are acknowledged, and **being fatter** could be inferred evidently from **being less well-educated**, which the potential implications of **hardly getting a job** as well as **the marker of hectic life or losing weight** are presumed. (72 words)

#### Sample answer 2:

Although skipping breakfast seems a simple way of losing weight and was the marker of a hectic life, a study has revealed that more smoking and drinking, less exercise, being fatter and less educated as well as higher body mass index are all associated to the adults who miss ‘the most important meal of the day’, and this association exists during adulthood. (62 words)

### 37. Sports strive to be swifter, higher, lower in carbon

Major athletic events around the globe — from the 2014 Sochi Olympics to an annual powerboat race in Norwegian fiords—are striving to neutralize their carbon footprint as part of a worldwide climate network, the United Nations Environment Program (UNEP) said today. The sporting events are the latest participants to join the network, and are particularly important for inspiring further global action on the environment, said Achim Steiner, UNEP Executive Director.

Organizers of the 2014 Sochi Olympic and Paralympic Winter Games—to be held in a unique natural setting between the shores of the Black Sea and the soaring snow-capped Caucasus



Mountains — say they will put an estimated \$1.75 billion into energy conservation and renewable energy

That investment will be dedicated to improving transport infrastructure, offsetting greenhouse gas emissions from the use of electricity, air travel and ground transportation, the reforestation of Sochi National Park and the development of green belts in the city.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **major athletic events** emphasizes the significance of **neutralizing the carbon footprint**, the corresponding impacts of a **worldwide climate network** such as **inspiring more global actions on the environment** and a **unique natural setting** are acknowledged, and **an investment** could be inferred evidently from **improving transport infrastructure**, which the potential implications of **offsetting greenhouse gas emissions** as well as **the reforestation of Sochi National Park** are presumed. (71 words)

\*the UNEP

\*the development of green belts

**Sample answer 2:**

UNEP reported that sporting events, as the latest participants to be involved in the world-wide climate network aiming to neutralize the carbon effects on the globe, provide inspiration for further global action on the environment by investing on energy conservation, renewable energy, improvements in transportation infrastructure, the use of electricity as compensation for greenhouse gas emissions and the development of green belts in the city. (65 words)

### 38. Office Space

The notion that office space has a role in promoting or inhibiting performance is backed up by solid research. A recent study conducted by Harvard University and Massachusetts General Hospital showed that improvements to the physical surroundings of workers impacted on productivity not just because the working environment was more attractive, but because the changes made cared for. A Swedish research paper revealed a strong link between the type of office an employee worked in and their overall job action and health. Various findings have emerged a result of studies such as this. Pot plants and greenery can apparently have a real impact on psychological well-being. Those who work in private room tend to be in better health than workers in open-plan offices. Sufficient light can reduce sickness among workers and increase productivity, and an attractive office can make workers feel more cared for and therefore more loyal to their company. Mo these points make good rational Sense. But some companies aren't content sim y to increase the health, productivity and contentment of their employees. Pioneers such as Google, Walt Disney and Dyson have tilled to create offices that will do everything from promoting collaboration between workers to stimulating their creative juices. "Environment, both physical and cultural, can make or break creativity", says Kursty Groves, author of I Wish I Worked There! A Look Inside the Most Creative Spaces in Business. "Stimulating spaces expose the mind to a variety of stimuli — planned or random, in order to

encourage people to think differently. Reflective spaces promote the filtering of information into the brain, slowing it to make connections. An environment which encourages a team to build trust and to play freely is an essential ingredient for innovation.”

**Sample answer 1 (Template):**

Whereas the fundamental essence of **office space** emphasizes the significance of **promoting or inhibiting performance**, the corresponding impacts of **improving the physical surroundings** such as **impacting on productivity** and **more loyalty** are acknowledged, and **physical and cultural environment** could be inferred evidently from **making or breaking creativity**, which the potential implications of **stimulating and reflecting spaces** as well as **an essential ingredient for innovation** are presumed. (66 words)

\* solid research

\*psychological well-being

\*feeling of being more valued

\*making slower connections

**Sample answer 2:**

A recent study conducted by Harvard University and Massachusetts General Hospital showed that there is a strong link between office space and performance of employees, as physical surroundings plays an important role in boosting productivity and job satisfaction which has caused pioneers such as Google, Walt Disney and Dyson to create healthy offices that enhance their creativity, innovation and psychological well-being. (61 words)

**39. Wright Brothers and Flight**

Unfortunately, I cannot find the exact passages on the Internet, but below are my memories which are very close the meaning of the real test question.

The Wrights dated the origin of their interest in flight to 1878, when their father had presented them with a toy helicopter. News accounts of the death of the German gliding pioneer Otto Lilienthal in an August 1896 glider crash reawakened their interest and led to a search for trustworthy information on aeronautics.

There are three important elements in designing an aircraft. The first two are wings and structure, which have been well developed. It is a control system that Wright brothers have realized that is essential to achieve a successful flight. But such formidable problem has been solved and makes them a breakthrough.

Wright brothers are flying around the Statue of Liberty then up the Hudson River to Grant's Tomb and back. Over a million Americans see this fly and they became the celebrity.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **Wright brothers and flight** emphasizes the significance of **dating their interest**, the corresponding impacts of **a toy helicopter** such as **a glider crash** and **reawaking their interest** are acknowledged, and **searching for trustworthy information**



could be inferred evidently from **important elements in designing an aircraft**, which the potential implications of **wings and structure** as well as **a control system** are presumed. (66 words)

\*a breakthrough

#### 40. The New Museology

What is museology? A simple definition might be that it is the study of museums, their history and underlying philosophy, the various ways in which they have, in the course of time, been established and developed, their avowed or unspoken aims and policies, their educative or political or social role. More broadly conceived, such a study might also embrace the bewildering variety of audiences- visitors, scholars, art lovers, children- at whom the efforts of museum staff are supposedly directed, as well as related topics such as the legal duties and responsibilities placed upon (or incurred by) museums, perhaps even some thought as to their future.

Seen in this light, museology might appear at first sight a subject so specialized as to concern only museum professionals, who by virtue of their occupation are more or less obliged to take an interest in it.

In reality, since museums are almost, if not quite as old as civilization itself, and since the plethora of present-day museums embraces virtually every field of human endeavor- not just art, or craft, or science, but entertainment, agriculture, rural life, childhood, fisheries, antiquities, automobiles: the list is endless- it is a field of enquiry so broad as to be a matter of concern to almost everybody.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **museology** emphasizes the significance of **embracing the bewildering various audiences**, the corresponding impacts of **directing the efforts of museum staff** such as **placing legal duties and responsibilities** and **a specialized subject** are acknowledged, and **museum professionals** could be inferred evidently from **the plethora of present-day museums**, which the potential implications of **embracing all fields of human endeavor** as well as **a matter for everyone** are presumed. (71 words)

#### Sample answer 2:

Museology is a specialized subject investigating various aspects of museums, which seemingly only the professionals are interested in, yet, since its intimacy with every field of human endeavor from past to present, it shall not be neglected by ordinary people.

#### 41. Electric Cars

Although we tend to think of electric cars as being something completely modern, they were in fact some of the earliest types of motorized vehicle. At the beginning of the twentieth-century electric cars were actually more popular than cars with an internal combustion engine as they were more comfortable to ride in. However, as cars fueled by petrol increased in importance. Electric cars declined. The situation became such that electric vehicles were only used for certain specific purposes – as fork-lift trucks, ambulances and urban delivery vehicles, for example.

Although electricity declined in use in road vehicles, it steadily grew in importance as a means of powering trains. Switzerland, for example, was quick to develop an electrified train system, encouraged in this no doubt by the fact that it had no coal or oil resources of its own.

Nowadays there is renewed interest in Electricity as a means of powering road vehicles. Why is this case? Well, undoubtedly economic reasons are of considerable importance. The cost of oil has risen so sharply that there is a strong financial imperative to look for an alternative. However, there are also environmental motivations. Emissions from cars re-blamed in large part for – among other things – the destruction of the ozone layer and the resultant rise in temperatures in the Polar Regions. A desire not to let things get any worse is also encouraging research into designing effective electric transport.

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **a renewed interest in modern electric cars** emphasizes the significance of **petrol-driven vehicles**, the corresponding impacts of **an internal combustion engine** such as **powering trains** and **oil resources** are acknowledged, and **economic reasons** could be inferred evidently from **a strong financial imperative**, which the potential implications of **environmental considerations** as well as **a strong financial imperative** are presumed. (63 words)

#### **Sample answer 2:**

Electric vehicles have been around since the beginning of the twentieth century, but petrol-driven cars became more important so electric power was only used for specific purposes, such as a means of powering trains; nowadays there is a renewed interest in electric vehicles due to economic and environmental considerations, as people do not wish to let things get any worse. (61 words)

#### 42. Experimental Treatment

Four years ago, Darek Fidyka was stabbed in the back, leaving his spinal cord severed, and his body from the chest down paralyzed. Now, after an experimental treatment, Fidyka has regained some feeling in his lower body and is learning to walk again.

The researchers are looking to use less invasive techniques in the future, because undergoing brain surgery to extract the olfactory tissue isn't anyone's idea of a good time, much less someone who is paralyzed.



The BBC reports that over 100 micro injections of olfactory unsheathing cells were injected into the injury site, and strips of nerve tissue from Fidyka ankle were laid across the gap in the spinal cord, in the hopes that the cells from the olfactory bulbs would encourage regrowth. A similar procedure had been successfully tested on dogs in 2012.

Now, 19 months after the operation, Fidyka has regained sensation in parts of his lower body, and after intense physical therapy is able to walk using a walker. As an added bonus, even with one olfactory bulb removed, Fidyka retained his sense of smell.

He told the BBC: "I think it's realistic that one day I will become independent. What I have learned is that you must never give up but keep fighting, because some door will open in life."

The story is the subject of an episode of the BBC television program Panorama airing today at 10:35 pm in the UK. The study itself will be published in the journal Cell Transplantation at a later date, but the researchers acknowledge that as exciting as this result is, there is still a lot more work to be done.

"Our results are very encouraging," the medical team is quoted as saying in a statement. "However, our results need to be confirmed in a larger group of patients with a similar injury. In the meantime, we are investigating surgical techniques for more minimally invasive access to the olfactory bulb."

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **the experimental treatment** emphasizes the significance of **the patient**, the corresponding impacts of **lower body** such as **using less invasive techniques** and **brain surgery** are acknowledged, and **extracting the olfactory tissue** could be inferred evidently from **regrowth encouragement**, which the potential implications of a **similar injury** as well as **walking again** are presumed. (58 words)

#### **Sample answer 2:**

The experimental treatment is proven to be successful, as the patient has regained some feeling in his lower body and is learning to walk again, and the researchers are looking to use less invasive techniques in the future, because undergoing brain surgery to extract the olfactory tissue is not a good idea, especially for someone who is paralyzed. (58 words)

### 43. Plants Research

Plants serve as the conduit of energy into the biosphere, provide food and materials used by humans, and they shape our environment. According to Ehrhardt and Frommer, the three major challenges facing humanity in our time are food, energy, and environmental degradation. All three are plant related.

All of our food is produced by plants, either directly or indirectly via animals that eat them. Plants are a source of energy production. And they are intimately involved in climate change and a major factor in a variety of environmental concerns, including agricultural expansion and its impact on habitat destruction and waterway pollution.

What's more, none of these issues are independent of each other. Climate change places additional stresses on the food supply and on various habitats. So, plant research is instrumental in addressing all of these problems and moving into the future. For plant research to move significantly forward, Ehrhardt and Former say technological development is critical, both to test existing hypotheses and to gain new information and generate fresh hypotheses. If we are to make headway in understanding how these essential organisms function and build the foundation for a sustainable future, then we need to apply the most advanced technologies available to the study of plant life, they say.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **servicing plants** emphasizes the significance of **the conduit of energy**, the corresponding impacts of **climate change** such as **energy** and **environmental degradation** are acknowledged, and **providing food** could be inferred evidently from **agricultural expansion**, which the potential implications of **shaping our environment** as well as **three interrelated challenges** are presumed. (๑๑ words)

**Sample answer 2:**

Plants serve as the conduit of energy into the biosphere, provide food and materials used by humans and shape our environment, but they are also strongly related to three interrelated challenges, namely food, energy and environmental degradation. (37 words)

#### 44. Primary Carer

Slightly less than one in five carers (19%) were primary carers (475,000 people). That is, they were the main carer of a person who was limited in carrying out the core everyday activities of mobility, communication or self-care. Both primary carers and the larger group of other carers (close to 2 million) contribute to the wellbeing of older people and people with disabilities. However, because they care for people who otherwise would have difficulty carrying out basic everyday activities, there is particular interest in primary carers: in the contribution they make, their wellbeing, labor force experiences, motivations and the support they receive in caring.

Primary carers were more likely than other carers to be assisting someone who lived in the same household (81% compared with 76%). As with caring as a whole, the likelihood of being a primary carer increased with age to peak at age 55-64 years, where one in twenty people were primary carers. However, rather than then declining, the likelihood of being a primary carer remained at around this level among the older age groups. Consequently, primary carers had a somewhat older age profile than other carers. The median age of primary carers was 52 years, compared with 47 years for other carers.

Primary carers were more likely than other carers to be female (11% compared with 50%) and less likely to be in the labor force (39% compared with 60%). Women not in the labor force were by far the largest single group among primary carers (44%). In contrast, men employed full time were the largest single group among other carers (25%). Consistent with their lower labor force participation, primary carers had lower personal incomes than other carers (a



median gross income M \$231 per week compared with \$321 per week) and were more likely to have a government pension or allowance as their main source at income (55% compared with 35%).

**Sample answer (Template):**

Whereas the fundamental essence of **primary carers** emphasizes the significance of **the core everyday activities**, the corresponding impacts of **the wellbeing of aged people** such as **labor force experiences** and **motivation** are acknowledged, and **receiving support** could be inferred evidently from **the largest single group**, which the potential implications of **men force participation** as well as **a government pension** are presumed. (61 words)

#### 45. THE BOOKSELLERS OF HOOKHAM

THE BOOKSELLERS OF HOOKHAM AND CARPENTER (hereafter referred to only as 'Hookham') were located on New Bond Street in London, and their records span the most politically turbulent decade of the eighteenth-century—the 1790s. Clients who frequented Hookham were primarily from the aristocratic or gentry classes. In fact, of Hookham's total buyers, 22% were aristocracy and 35% (204 customers) of the aristocracy purchased novels. We can also confidently assume that untitled female customers were of gentry income, because their addresses were primarily in London's fashionable 'West End'.

Hookham's ledgers not only reveal a dramatic increase in the proportion of female purchasers of novels by comparison to earlier studies of provincial women, but they also reveal a remarkable increase in the proportion of female purchases of novels authored by females. Such a marked increase illustrates that Hookham's leisured female customers were able to buy more novels. Furthermore, the fact that these female aristocrats and gentry have accounts under their own name, not their husbands', demonstrates the greater degree of agency and independence that these urban, moneyed women had relative to provincial women. However, because our study does not include an examination of male customers, we are very limited in what claims we can make about whether or not these women behaved according to the cliché that women were the predominant consumers of novels in the eighteenth-century.

Moreover, while more disposable income and leisure time certainly accounts for the significant increase in female purchases of novels authored by women in the 1790s, this increase also strongly suggests a desire on the part of women readers to engage in this politically charged decade. Thus, novel-reading provided women readers with the means through which they were able to participate in the male-dominated world of politics. The latter part of our paper will more fully explore this hypothesis in the context of certain recent literary scholars' claims that both Gothic and sentimental novels are actively engaged in political debate and discussion.

**Sample answer (Template):**

Whereas the fundamental essence of **the booksellers of Hookham** emphasizes the significance of **engaging in politically charged decade**, the corresponding impacts of **aristocracy purchased novels** such as **the gentry classes** and **female purchasers** are acknowledged, and



women readers could be inferred evidently from **the participation in the male-dominated world**, which the potential implications of both **disposable income** as well as **political debate** are presumed. (64 words)

#### 46. The smallest star

The smallest star yet measured has been discovered by a team of astronomers led by the University of Cambridge. With a size just a sliver larger than that of Saturn, the gravitational pull at its stellar surface is about 300 times stronger than what humans feel on Earth.

The star is likely as small as stars can possibly become, as it has just enough mass to enable the fusion of hydrogen nuclei into helium. If it were any smaller, the pressure at the center of the star would no longer be sufficient to enable this process to take place. Hydrogen fusion is also what powers the Sun, and scientists are attempting to replicate it as a powerful energy source here on Earth.

These very small and dim stars are also the best possible candidates for detecting Earth-sized planets which can have liquid water on their surfaces, such as TRAPPIST-1, an ultracool dwarf surrounded by seven temperate Earth-sized worlds.

The newly-measured star, called EBLM J0555-57Ab, is located about six hundred light years away. It is part of a binary system and was identified as it passed in front of its much larger companion, a method which is usually used to detect planets, not stars. Details will be published in the journal *Astronomy & Astrophysics*.

#### Sample answer (Template):

Whereas the fundamental essence of **the smallest star** emphasizes the significance of the **central pressure**, the corresponding impacts of **the gravitational pull at its stellar surfaces** such as **enough mass** and **the fusion of hydrogen nuclei** are acknowledged, and **a powerful energy source** could be inferred evidently from **detecting Earth-sized planets**, which the potential implications of **a binary system** as well as liquid water are presumed. (67 words)

#### 47. The oral storytelling skills of African American preschoolers

The oral storytelling skills of African American preschoolers make a difference in how quickly their reading skills develop, according to a new study from the Frank Porter Graham Child Development Institute (FPG) at the University of North Carolina at Chapel Hill. Researchers say the effect is much different for girls and boys.

“Knowing how to tell a clear and coherent story is an important skill for helping young children to develop strong reading skills, which, in turn, can help them to be successful across a number of different subjects in school,” said FPG advanced research scientist Nicole Gardner-Neblett.

“Prior research suggests that historical and cultural factors foster strong storytelling skills among African American children, which has implications for their development as readers.”

Two years ago, Gardner-Neblett’s own research was the first to demonstrate the connection between African American preschoolers’ storytelling abilities and their early reading skills in



kindergarten. That study found a link between storytelling and reading only for the African American children, from households across income levels, but not for any other demographic group.

Stark differences in reading achievement exist between Black and White elementary schoolchildren, as does a gender gap in reading outcomes, with girls outperforming boys. Because of both disparities in achievement, Gardner-Neblett and FPG advanced research scientist John Sideris wanted to better understand if and how gender plays a role in the link between African American children's storytelling skills and reading development.

**Sample answer (Template):**

Whereas the fundamental essence of **the oral storytelling skills of African American preschoolers** emphasizes the significance of **developing reading skills**, the corresponding impacts of **the coherent story** such as **cultural factors** and **households' income levels** are acknowledged, and **a demographic group** could be inferred evidently from **elementary schoolchildren**, which the potential implications of **a gender gap** as well as **achievement disparities** are presumed. (63 words)

**48. The greatest climate change**

The greatest climate change the world has seen in the last 100,000 years was the transition from the ice age to the warm interglacial period. New research from the Niels Bohr Institute at the University of Copenhagen indicates that, contrary to the previous opinion, the rise in temperature and the rise in the atmospheric CO<sub>2</sub> follow each other closely in terms of time. The results have been published in the scientific journal, *Climate of the Past*.

In the warmer climate, the atmospheric content of CO<sub>2</sub> is naturally higher. The gas CO<sub>2</sub> (carbon dioxide) is a greenhouse gas that absorbs heat radiation from Earth and thus keeps Earth warm. In the shift between ice ages and interglacial periods, the atmospheric content of CO<sub>2</sub> helps to intensify the natural climate variations.

It had previously been thought that as the temperature began to rise at the end of the ice age approximately 19,000 years ago, an increase in the amount of CO<sub>2</sub> in the atmosphere followed with a delay of up to 1,000 years.

“Our analysis of ice cores from the ice sheet in Antarctica shows that the concentration of CO<sub>2</sub> in the atmosphere follows the rise in Antarctic temperatures very closely and is staggered by a few hundred years at most,” explains Sune Olander Rasmussen, Associate Professor and center coordinator at the Centre for Ice and Climate at the Niels Bohr Institute at the University of Copenhagen.

**Sample answer (Template):**

Whereas the fundamental essence **of the greatest climate change** emphasizes the significance of **the ice age**, the corresponding impacts of **the warm interglacial period** such as **the temperature rise** and **the atmospheric CO<sub>2</sub>** are acknowledged, and **a greenhouse gas** could

be inferred evidently from **the Earth heat radiation**, which the potential implications of **the natural climate variations** as well as **Antarctic temperatures** are presumed. (64 words)

#### 49. Cyberbullying

Despite the growth of social media, the internet and their central role in modern childhood, traditional bullying — such as name-calling or being excluded by others — remains considerably more common than cyberbullying, according to the largest study of its kind published in The Lancet Child and Adolescent Health journal.

The study estimates that less than 1% of 15-year-olds in England report only being bullied online regularly, while more than one in four (27%) experience only face-to-face bullying methods.

With nine out of 10 of the teenagers who are bullied online also facing regular traditional bullying, the researchers suggest that cyberbullying is an additional tactic in the bullies' arsenal, and that both forms must be tackled together to prevent bullying and improve teenagers' resilience.

Concerns have been raised that cyberbullying has the potential to cause more harm than traditional bullying due to the relative anonymity of perpetrators in many cases, larger audiences, increasing prevalence, and permanence of posted messages. However, in the study, the experience of only cyberbullying was found to have a very small association with well-being and life satisfaction when compared with traditional bullying alone.

#### **Sample answer (Template):**

Whereas the fundamental essence of **the growth of social media** emphasizes the significance of **the internet role in modern childhood**, the corresponding impacts of **face-to-face bullying methods** such as **name-calling and being excluded by others** are acknowledged, and **cyberbullying prevention** could be inferred evidently from **improving teenagers' resilience**, which the potential implications of **posted messages** as well as **life satisfaction** are presumed. (62 words)

#### 50. Delivering packages

Delivering packages with drones can reduce carbon dioxide emissions in certain circumstances as compared to truck deliveries, a new study from University of Washington transportation engineers finds.

In a paper to be published in an upcoming issue of Transportation Research Part D, researchers found that drones tend to have carbon dioxide emissions advantages over trucks when the drones don't have to fly very far to their destinations or when a delivery route has few recipients.

Trucks — which can offer environmental benefits by carrying everything from clothes to appliances to furniture in a single trip — become a more climate-friendly alternative when a delivery route has many stops or is farther away from a central warehouse.



For small, light packages — a bottle of medicine or a kid's bathing suit — drones compete especially well. But the carbon benefits erode as the weight of a package increase since these unmanned aerial vehicles have to use additional energy to stay aloft with a heavy load.

**Sample answer (Template):**

Whereas the fundamental essence of **delivering packages with drones** emphasizes the significance of **a reduction in carbon dioxide emissions**, the corresponding impacts of **a delivery route** such as **environmental benefits** and **a climate-friendly alternative** are acknowledged, and **truck deliveries** could be inferred evidently from **weight of a package**, which the potential implications of **unmanned aerial vehicles** as well as **using additional energy** are presumed. (64 words)

**(new 97/02/20)**

51. Nurse Sharks

Nurse sharks are nocturnal animals, spending the day in large inactive groups of up to 40 individuals. Hidden under submerged ledges or in crevices within the reef, the Nurse sharks seem to prefer specific resting sites and will return to them each day after the nights hunting. By night, the sharks are largely solitary. Nurse sharks spend most of their time foraging through the bottom sediments in search of food. Their diet consists primarily of crustaceans, molluscs, tunicates and other fish such as spiny lobsters, crabs, shrimps, sea urchins, octopuses, squid, marine snails and bivalves and in particular, stingrays.

Nurse sharks are thought to take advantage of dormant fish which would otherwise be too fast for the sharks to catch, although their small mouths limit the size of prey items, the sharks have large throat cavities which are used as a sort of bellows valve. In this way, Nurse sharks are able to suck in their prey. Nurse sharks are also known to graze algae and coral.

Nurse sharks have been observed resting on the bottom with their bodies supported on their fins, possibly providing a false shelter for crustaceans which they then ambush and eat.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **nocturnal nurse sharks** emphasizes the significance of **living in inactive groups by day**, the corresponding impacts of **hunting in nights** such as **being solitary** and **searching for food** are acknowledged, and **some dormant fish** could be inferred evidently from **the size of prey items**, which the potential implications of **sucking in the prey, grazing algae** as well as **providing a false shelter** are presumed. (69 words)

52. The food and eating in Australian public consciousness

In the past two centuries there has been a dramatic change in the role of food and eating in Australian public consciousness. Public discussion of food was largely confined to matters of supply, distribution and price. Towards the end of the nineteenth century some newspapers

were offering regular columns of advice on housekeeping topics, including menu planning and recipes. However, eating remained essentially a private activity, even when undertaken in company .

By the late twentieth century, food and eating had become prominent public preoccupations. Evidence of this dramatic cultural reevaluation abounds. In bookstores, for example, cookery and all things related to it are often among the larger displays. There are specialty stores selling all manner of cookware, tableware and other paraphernalia associated with food, eating and drinking .

Perhaps most telling is the extension of the phenomenon of mass media celebrity to include culinary personalities. Scholars, too, have jumped on the commodification bandwagon. Now degrees in gastronomy seem set to emulate the MBA phenomenon of the 1980s and food has become a respectable subject for investigation with philosophers, sociologists, historians, cultural theorists, ecologists and many others all having a go at it .

Surprisingly, the question seems to have held little fascination for most historians. For the best part of two centuries they have managed to write their accounts of colonization and nationhood with only scant reference to how the settlers and their descendants fed themselves.

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **a dramatic change** emphasizes the significance of **the role of food in Australia**, the corresponding impacts of **a private activity** such as **important public preoccupations** and **cultural revolution abounds** are acknowledged, and **degrees in gastronomy** could be inferred evidently from **culinary personalities**, which the potential implications of **the mass media** as well as **a subject for investigation** are presumed. (64 words)

#### **53. Orbital Debris**

For decades, space experts have worried that a speeding bit of orbital debris might one day smash a large spacecraft in to hundreds of pieces and start a chain reaction, a slow cascade of collisions that would expand for centuries, spreading chaos through the heavens. In the last decade or so, as scientists came to agree that the number of objects in orbit had surpassed a critical mass or, in their terms, the critical spatial density, the point at which a chain reaction becomes inevitable they grew more anxious.

Early this year, after a half-century of growth, the federal list of detectable objects (four inches wide or larger) reached 10,000, including dead satellites, spent rocket stages, a camera, a hand tool and junkyards of whirling debris left over from chance explosions and destructive tests. So our billion dollar of satellites are at risk.

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **orbital debris** emphasizes the significance of **smashing a spacecraft**, the corresponding impacts of **a chain reaction** such as **a cascade of collisions** and **a critical mass** are acknowledged, and **spreading chaos** could be inferred evidently from



**the critical spatial density**, which the potential implications of **an inevitable chain reaction** as well as **a list of detectable objects** are presumed. (64 words)

#### 54. Electric Eels

On a field trip to the Amazon in 1807, 19th-century explorer Alexander Von Humboldt witnessed a group of horses leap through a muddy pool filled with electric eels, which he described as dramatically leaping up to attack the intruders. But scientists have doubted the story. An illustration of Alexander Von Humboldt's story of the battle between the horses and electric eels.

The first time I read Von Humboldt's tale, I thought it was completely bizarre, Catania says. Why would the eels attack the horses instead of swimming away? But then he observed the same behavior by accident as he transferred the eels in his lab from one tank to another using a metal-rimmed net. Instead of swimming away, larger eels attacked the net by leaping out of the water.

Catania tracked the strength of the eel's electric shock by attaching a voltmeter to an aluminum plate, or conductive metal strips to predator objects such as a crocodile head replica. The zap a submerged eel distributes through the water is relatively weak when it reaches the target.

But when an eel touches it with its electricity-generating chin, the current travels directly to the target and has to travel through its body before it gets back to the water, Catania reported in Proceedings of the National Academy of Sciences.

This allows the eels to deliver shocks with a maximum amount of power to partially submerged land animals that invade their territory, Catania explains. It also allows them to electrify a much larger portion of the invaders body.

Catania found the eels leapt to attack, rather than receded, more often when the water in the aquarium was lower. He argues the attack lets electric eels better defend themselves during the Amazon dry season. When they're cornered in small pools and make easy prey.

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **electric eels** emphasizes the significance of **attacking the intruders**, the corresponding impacts of **being a bizarre tale** such as **swimming away** and **attacking the net** are acknowledged, and **electrifying invaders body** could be inferred evidently from **the target** and **electricity-generating chin**, which the potential implications of **the low water level** as well as **the dry season** are presumed. (63 words)

#### 55. The importance of Water

Water is at the core of sustainable development. Water resources, and the range of services they provide, underpin poverty reduction, economic growth and environmental sustainability. From food and energy security to human and environmental health, water contributes to improvements in social well-being and inclusive growth, affecting the livelihoods of billions.

In a sustainable world that is achievable in the near future, water and related resources are managed in support of human well-being and ecosystem integrity in a robust economy. Sufficient and safe water is made available to meet every person's basic needs, with healthy lifestyles and behaviours easily upheld through reliable and affordable water supply and sanitation services, in turn supported by equitably extended and efficiently managed infrastructure. Water resources management, infrastructure and service delivery are sustainably financed. Water is duly valued in all its forms, with wastewater treated as a resource that avails energy, nutrients and freshwater for reuse. Human settlements develop in harmony with the natural water cycle and the ecosystems that support it, with measures in place that reduce vulnerability and improve resilience to water-related disasters. Integrated approaches to water resources development, management and use – and to human rights – are the norm. Water is governed in a participatory way that draws on the full potential of women and men as professionals and citizens, guided by a number of able and knowledgeable organizations, within a just and transparent institutional framework.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **water resources** emphasizes the significance of **sustainable improvements**, the corresponding impacts of **poverty reduction** such as **economic growth** and **environmental sustainability** are acknowledged, and **improving social well-being** could be inferred evidently from **ecosystem integrity**, **infrastructure management** and **the natural water cycle**, which the potential implications of **sanitation services** as well as **knowledgeable organizations** are presumed. (60 words)

**56. Frog in Amber**

Mexico City -- A miner in the state of Chiapas found a tiny tree frog preserved in amber is believed to have lived about 25 million years ago, a Mexican researcher says. The chunk of amber containing the centimeter-long frog was uncovered by a miner in southern Chiapas State in 2005 and bought by a private collector, who lent it to scientists for study.

Only a few preserved frogs have been found in chunks of amber — a stone formed by ancient tree sap — mostly in the Dominican Republic. Like those, the frog found in Chiapas was of the genus *Craugastor*, whose relatives still inhabit the region. Gerardo Carbot, the biologist with the Chiapas Natural History and Ecology Institute who announced the discovery on Wednesday, said it was the first such frog found in amber in Mexico.

Carbot said he would like to extract a sample from the frog's remains to see whether they contain well-preserved DNA, in order to identify the frog's species. However, he expressed doubt that the stone's owner would allow researchers to drill a small hole into the chunk of amber.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **an ancient tree frog** emphasizes the significance of **being preserved in amber**, the corresponding impacts of **doing some scientific research** such as



living in the region and extracting a sample are acknowledged, and the frog's remains could be inferred evidently from containing well-preserved DNA, which the potential implications of the frog's species as well as drilling a hole are presumed. (65 words)

### 57. Overqualified worker

If your recruiting efforts attract job applicants with too much experience a near certainty in this weak labor market you should consider a response that runs counter to most hiring managers MO: Don't reject those applicants out of hand.

Instead, take a closer look. New research shows that overqualified workers tend to perform better than other employees, and they don't quit any sooner. Furthermore, a simple managerial tactic empowerment can mitigate any dissatisfaction they may feel.

The prejudice against too-good employees is pervasive. Companies tend to prefer an applicant who is a perfect fit over someone who brings more intelligence, education, or experience than needed. On the surface, this bias makes sense: Studies have consistently shown that employees who consider themselves overqualified exhibiting her levels of discontent. For example, over-qualification correlated well with job dissatisfaction in a 2008 study of 156 call-center reps by Israel-ire searchers Saul Fine and Baruch Nevo. And unlike discrimination based on age or gender, declining to hire overqualified workers is perfectly legal.

But even before the economic downturn, a surplus of overqualified candidates was a global problem, particularly in developing economies, where rising education levels are giving workers more skills than are needed to supply the growing service sectors. If managers can get beyond the conventional wisdom, the growing pool of too-good applicants is a great opportunity. Berrin Erdogan and Talya N. Bauer of Portland State University in Oregon found that overqualified workers' feelings of dissatisfaction can be dissipated by giving them autonomy in decision making. At stores where employees didn't feel empowered, over-educated workers expressed greater dissatisfaction than their colleagues did and were more likely to state an intention to quit. But that difference vanished where self-reported autonomy was high.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **overqualified workers** emphasizes the significance of a **managerial tactic**, the corresponding impacts of **decreasing job dissatisfaction** such as **legal discrimination** and a **global problem** are acknowledged, and **rising education levels** could be inferred evidently from **skillful employees**, which the potential implications of a **great opportunity** as well as **self-reported autonomy** are presumed. (62 words)

### 58. Overqualified

New research shows that overqualified workers tend to perform better than other employees, and they don't quit any sooner. Furthermore, a simple managerial tactic—empowerment—can mitigate any dissatisfaction they may feel.



The prejudice against too-good employees is pervasive. Companies tend to prefer an applicant who is a “perfect fit” over someone who brings more intelligence, education, or experience than needed. On the surface, this bias makes sense: Studies have consistently shown that employees who consider themselves overqualified exhibit higher levels of discontent. For example, overqualification correlated well with job dissatisfaction in a 2008 study of 156 call-center reps by Israeli researchers Saul Fine and Baruch Nevo. And unlike discrimination based on age or gender, declining to hire overqualified workers is perfectly legal, as shown by U.S. federal court rulings upholding the New London, Connecticut, police department’s rejection of a high-IQ candidate on the grounds that he’d probably become dissatisfied and quit.

This kind of thinking has tossed untold numbers of experienced, highly skilled people into the ranks of the long-term unemployed, a group that now constitutes nearly half of all U.S. jobless. But even before the economic downturn, a surplus of overqualified candidates was a global problem, particularly in developing economies, where rising education levels are giving workers more skills than are needed to supply the growing service sectors. In China, where the number of college graduates has tripled since 1998, more than one-fourth of this year’s 6.3 million college grads are out of work, according to *Bloomberg Businessweek*.

### Sample answer 1 (Template):

Whereas the fundamental essence of **overqualified workers** emphasizes the significance of **empowerment**, the corresponding impacts of **alleviating job dissatisfaction** such as **quitting the job** and **being a perfect fit** are acknowledged, and **a surplus of overqualified candidates** could be inferred evidently from **a global problem**, which the potential implications of **education levels** as well as **long-term unemployment** are presumed. (59 words)

### 59. Presidential election

According to the United States Constitution, a presidential election is to be held once every fourth year. The process of electing a President and Vice-President begins long before Election Day. Candidates from both major and minor political parties and independent candidates begin to raise money and campaign at least one year in advance of the general presidential election. In order to officially represent a political party, a candidate must be nominated by that party.

This primary nomination process is a contest that often produces factions within political parties. These divisions impact the policy stances and agendas of the candidates running for nomination as they attempt to garner the support of party leaders and activists. The nominating process officially begins with the first state primaries and caucuses, which usually occur in the month of February of the election year. It is at these local events that voters are given their first chance to participate in electing the nation's next President.

There are many factors that influence who will ultimately become the candidate for a party. The public's perception of the candidates is influenced by such things as media reports, public opinion polls, candidate preference surveys, and advertising. These factors will help determine



the perceived strengths and weaknesses of the candidates in the months leading up to the caucuses and primaries.

**Sample answer 1 (Template):**

Whereas the fundamental essence of a **presidential election** emphasizes the significance of **political parties**, the corresponding impacts of a **nomination process**, such as **producing factions** and **the support of party leaders** are acknowledged, and **the first state primaries** could be inferred evidently from **local events**, which the potential implications of **the public's perception** and **some influential factors** are presumed. (59 words)

**60. Double Blind**

The feature of being "double blind", where neither patients nor physicians are aware of who receives the experimental treatment, is almost universally trumpeted as being a virtue of clinical trials. Hence, trials that fail to remain successfully double blind are regarded as providing inferior evidential support. The rationale for this view is unobjectionable: double blinding rules out the potential confounding influences of patient and physician beliefs. Nonetheless, viewing double blind trial as necessarily superior is problematic. For one, it leads to the paradox that very effective experimental treatments will not be supportable by best evidence. If a new drug were to make even the most severe symptoms of the common cold disappear within seconds, most participants and investigators would correctly identify it as the latest wonder drug and not the control (i.e. placebo) treatment. Any trial testing the effectiveness of this wonder drug will therefore fail to remain double blind. Similar problems arise for treatments, such as exercise and most surgical techniques, whose nature makes them resistant to being tested in double blind conditions. It seems strange that an account of evidence should make a priori judgments that certain claims can never be supported by 'best evidence'. It would be different if the claims at issue were pseudoscientific — untestable. But so far as treatments with large effects go, the claim that they are effective is highly testable and intuitively they should receive greater support from the evidence than do claims about treatments with moderate effects.

**Sample answer 1 (Template):**

Whereas the fundamental essences of **being double-blind** emphasizes the significance of **the experimental treatment**, the corresponding impacts of **unaware patients and physicians**, such as **the virtue of clinical trials** and **the evidential support** are acknowledged, and **the unobjectionable rationale** could be inferred evidently from a **problematic trial**, which the potential implications of **not being supported by evidence** as well as a **test-resistant nature** are presumed. (65 words)

### 61. Rosetta Stone

When the Rosetta Stone was discovered in 1799, the carved characters that covered its surface were quickly copied. Printer's ink was applied to the Stone and white paper laid over it. When the paper was removed, it revealed an exact copy of the text—but in reverse. Since then, many copies or "facsimiles" have been made using a variety of materials. Inevitably, the surface of the Stone accumulated many layers of material left over from these activities, despite attempts to remove any residue. Once on display, the grease from many thousands of human hands eager to touch the Stone added to the problem. An opportunity for investigation and cleaning the Rosetta Stone arose when this famous object was made the centerpiece of the Cracking Codes exhibition at The British Museum in 1999. When work commenced to remove all but the original, ancient material the stone was black with white lettering. As treatment progressed, the different substances uncovered were analyzed. Grease from human handling, a coating of carnauba wax from the early 1800s and printer's ink from 1799 were cleaned away using cotton wool swabs and liniment of soap, white spirit, acetone and purified water. Finally, white paint in the text, applied in 1981, which had been left in place until now as a protective coating, was removed with cotton swabs and purified water. A small square at the bottom left corner of the face of the Stone was left untouched to show the darkened wax and the white infill.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **copying the characters of Rosetta Stone** emphasizes the significance of **applying ink**, the corresponding impacts of **many facsimiles** such as **maintaining some residue** and **touching the stone** are acknowledged, and a **cleaning opportunity** could be inferred evidently from **unlike substances**, which the potential implications of a **protective coating** as well as **an untouched square** are presumed. (61 words)

### 62. Online learning

What makes teaching online unique is that it uses the Internet, especially the World Wide Web, as the primary means of communication. Thus, when you teach online, you don't have to be someplace to teach. You don't have to lug your briefcase full of papers or your laptop to a classroom, stand at a lectern, scribble on a chalkboard, or grade papers in a stuffy room while your students take a test. You don't even have to sit in your office waiting for students to show up for conferences. You can hold "office hours" on weekends or at night after dinner. You can do all this while living in a small town in Wyoming or a big city like Bangkok, even if you're working for a college whose administrative offices are located in Florida or Dubai. You can attend an important conference in Hawaii on the same day that you teach your class in New Jersey, longing on from your laptop via the local cafe's wireless hot spot or your hotel room's high-speed network.

Online learning offers more freedom for students as well. They can search for courses using the Web, scouring their institution or even the world for programs, classes and instructors that fit their needs. Having found an appropriate course, they can enroll and register, shop for their books, read articles, listen to lectures, submit their homework assignments, confer with their



instructors, and receive their final grades – all online. They can assemble in virtual classrooms, joining other students from diverse geographical locales, forging bond and friendships not possible in conventional classrooms, which are usually limited to students from a specific geographical area.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **online teaching** emphasizes the significance of **using the internet**, the corresponding impacts of **a mean of communication** such as **not being in a specific place** and **offering freedom for students** are acknowledged, and **online learning** could be inferred evidently from **searching for courses**, which the potential implications of **assembling in virtual classrooms** as well as **forming friendships** are presumed. (64 words)

63. **American English**

American English is, without doubt, the most influential and powerful variety of English in the world today. There are many reasons for this. First, the United States is, at present, the most powerful nation on earth and such power always brings with it influence. Indeed, the distinction between a dialect and a language has frequently been made by reference to power. As has been said, a language is a dialect with an army. Second, America's political influence is extended through American popular culture, in particular through the international reach of American films (movies, of course) and music. As Kahane has pointed out, the internationally dominant position of a culture results in a forceful expansion of its language.... the expansion of language contributes... to the prestige of the culture behind it. Third, the international prominence of American English is closely associated with the extraordinarily quick development of communications technology. Microsoft is owned by an American, Bill Gates. This means a computer's default setting for language is American English, although of course this can be changed to suit one's own circumstances. In short, the increased influence of American English is caused by political power and the resultant diffusion of American culture and media, technological advance and the rapid development of communications technology.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **American English** emphasizes the significance of **a powerful nation**, the corresponding impacts of **the difference between a dialect and a language** such as **American's political influence** and **prestigious culture** are acknowledged, and **communications technology** could be inferred evidently from **political power**, which the potential implications of **the media** as well as **the technological advances** are presumed. (61 words)

#### 64. Indonesian Volcano

In 1815 on the island of Sumbawa in Indonesia, a handsome and long-quiescent mountain named Tambora exploded spectacularly, killing a hundred thousand people with its blast and associated tsunamis. It was the biggest volcanic explosion in ten thousand years—150 times the size of Mount St. Helens, equivalent to sixty thousand Hiroshima-sized atom bombs. News didn't travel terribly fast in those days. In London, The Times ran a small story—actually a letter from a merchant—seven months after the event. But by this time Tambora's effects were already being felt. Thirty-six cubic miles of smoky ash, dust, and grit had diffused through the atmosphere, obscuring the Sun's rays and causing the Earth to cool. Sunsets were unusually but blarily colorful, an effect memorably captured by the artist. J. M. W. Turner, who could not have been happier, but mostly the world existed under an oppressive, dusky pall. It was this deathly dimness that inspired the Byron lines above.

Spring never came and summer never warmed: 1816 became known as the year without summer. Crops everywhere failed to grow. In Ireland a famine and associated typhoid epidemic killed sixty-five thousand people. In New England, the year became popularly known as Eighteen Hundred and Froze to Death. Morning frosts continued until June and almost no planted seed would grow. Short of fodder, livestock died or had to be prematurely slaughtered. In every way it was a dreadful year—almost certainly the worst for farmers in modern times. Yet globally the temperature fell by only about 1.5 degrees Fahrenheit. Earth's natural thermostat, as scientists would learn, is an exceedingly delicate instrument.

#### Sample answer 1 (Template):

Whereas the fundamental essence of a **spectacular volcanic explosion** emphasizes the significance of **spreading the news**, the corresponding impacts of **the atmosphere** such as **obscuring the sun's rays** and **falling temperature** are acknowledged, and **epidemic typhoid** could be inferred evidently from a **dreadful year**, which the potential implications of a **natural thermostat** as well as a **delicate instrument** are presumed. (60 words)

#### 65. Malaysia

Malaysia is one of the most pleasant, hassle-free countries to visit in Southeast Asia. Aside from its gleaming 21st century glass towers, it boasts some of the most superb beaches, mountains and national parks in the region.

Malaysia is also launching its biggest-ever tourism campaign in effort to lure 20 million visitors here this year. More than 16 million tourists visited in 2005, the last year for which complete statistics were available. While the majority of them were from Asia, mostly neighboring Singapore, Thailand, Indonesia, Brunei, China, Japan and India, a growing number of Western travelers are also making their way to this Southeast Asian tropical paradise. Of the 885,000 travelers from the West, 240,000 were from the United Kingdom, 265,000 from Australia and 150,000 from the U.S.

Any tourist itinerary would have to begin in the capital, Kuala Lumpur, where you will find the Petronas Twin Towers, which once comprised the world's tallest buildings and now hold



the title of second-tallest. Both the 88-story towers soar 1,480 feet high and are connected by a sky-bridge on the 41st floor.

Also worth visiting is the Central Market, a pre-war building that was the main wet market for the city, and has now been transformed into an arts and cultural center.

The limestone temple Batu Caves, located 9 miles north of the city, have a 328-foot-high ceiling and feature ornate Hindu shrines, including a 141-foot-tall gold-painted statue of a Hindu deity. To reach the caves, visitors have to climb a steep flight of 272 steps.

In Sabah state on Borneo island -- not to be confused with Indonesia's Borneo -- you'll find the small mushroom-shaped Sipadan island, off the coast of Sabah, rated as one of the top five diving sites in the world. Sipadan is the only oceanic island in Malaysia, rising from a 2,300-foot abyss in the Celebes Sea.

You can also climb Mount Kinabalu, the tallest peak in Southeast Asia, visit the Sepilok Orang Utan Sanctuary, go white-water rafting and catch a glimpse of the bizarre Proboscis monkey, a primate found only in Borneo with a huge pendulous nose, a characteristic pot belly and strange honking sounds.

While you're in Malaysia, consider a trip to Malacca. In its heyday, this southern state was a powerful Malay sultanate and a booming trading port in the region. Facing the Straits of Malacca, this historical state is now a place of intriguing Chinese streets, antique shops, old temples and reminders of European colonial powers.

Another interesting destination is Penang, known as the "Pearl of the Orient." This island off the northwest coast of Malaysia boasts of a rich Chinese cultural heritage, good food and beautiful beaches.

### **Sample answer 1 (Template):**

Whereas the fundamental essence of **Malaysia** emphasizes the significance of a **tourism campaign**, the corresponding impacts of **the second-tallest building in the world** such as a **pre-war building** and a **cultural center** are presumed, and a **cave with a statue** could be inferred evidently from **an island for diving**, which the potential implications of a **trading port** and **cultural heritage** are presumed. (61 words)

### 66. Benefits of Honey (1)

If you've been buying sports gels to keep you going during your workout, you might want to try honey instead. According to findings presented today at the annual Experimental Biology conference, honey delivers a significant performance boost to athletes during strenuous exercise.

"Numerous studies have singled out carbohydrates as a critical nutrient in endurance exercise," says principal investigator Richard Kreider of the University of Memphis Exercise and Sport Nutrition Laboratory. "Most of the studies to date have shown supplementation with glucose to provide the extra staying power. We were pleased to find that honey, a 'cocktail' of various natural sugars, performed just as well."

The team let nine competitive male cyclists cycle for 64 kilometers each week for three weeks, feeding them honey, dextrose gel or a flavored, calorie-free placebo. Participants received 15 grams of that supplement along with 250 milliliters of water before they raced and then every 16 kilometers while cycling. Both the honey and the dextrose gel led to better times and more cycling power among the athletes, as compared with the placebos effects. While the dextrose gel slightly outperformed honey, the difference was negligible, leading the researchers to conclude that honey can be a natural and effective carbohydrate source for endurance athletes.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **using honey instead of sports gels** emphasize the significance of **a performance boost**, the corresponding impacts of **strenuous exercises** such as **a critical nutrient** and **the staying power** are acknowledged, and **conducting an experiment on cyclists** could be inferred evidently from **a negligible difference**, which the potential implications of **a natural carbohydrate** and **endurance athlete** are presumed. (62 words)

67. Twins

UCLA neurology professor Paul Thompson and his colleagues scanned the brains of 23 sets of identical twins and 23 sets of fraternal twins. Since identical twins share the same genes while fraternal twins share about half their genes, the researchers were able to compare each group to show that myelin integrity was determined genetically in many parts of the brain that are key for intelligence. These include the parietal lobes, which are responsible for spatial reasoning, visual processing and logic, and the corpus callosum, which pulls together information from both sides of the body.

The researchers used a faster version of a type of scanner called a HARDI (high-angular resolution diffusion imaging) — think of an MRI machine on steroids — that takes scans of the brain at a much higher resolution than a standard MRI. While an MRI scan shows the volume of different tissues in the brain by measuring the amount of water present, HARDI tracks how water diffuses through the brain's white matter — a way to measure the quality of its myelin.

"HARDI measures water diffusion," said Thompson, who is also a member of the UCLA Laboratory of Neuro-Imaging. "If the water diffuses rapidly in a specific direction, it tells us that the brain has very fast connections. If it diffuses more broadly, that's an indication of slower signaling, and lower intelligence."

**Sample answer 1 (Template):**

Whereas the fundamental essence of **scanning the brain** emphasizes the significance of **identical and fraternal twins**, the corresponding impacts of **the size of shared genes** such as **the myelin integrity** and **the key for intelligence** are acknowledged, and **using a fast scanner called HARDI** could be inferred evidently from **tracking water diffusion**, which the potential implications of **specific directions** as well as **fast connections** are presumed. (66 words)



### 68. The Story of Columbus

When Christopher Columbus arrived at Hispaniola during his first transatlantic voyage in the year A.D. 1492, the island had already been settled by Native Americans for about 5,000 years. The occupants in Columbus's time were a group of Arawak Indians called Tainos who lived by farming, were organized into five chiefdoms, and numbered around half a million (the estimates range from 100,000 to 2,000,000). Columbus initially found them peaceful and friendly, until he and his Spaniards began mistreating them.

Unfortunately for the Tainos, they had gold, which the Spanish coveted but didn't want to go to the work of mining themselves. Hence the conquerors divided up the island and its Indian population among individual Spaniards, who put the Indians to work as virtual slaves, accidentally infected them with Eurasian diseases, and murdered them. By the year 1519, 27 years after Columbus's arrival, that original population of half a million had been reduced to about 11,000, most of whom died that year of smallpox to bring the population down to 3,000.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **Christopher Columbus** emphasizes the significance of **a voyage to Hispaniola**, the corresponding impacts of **Native Americans** such as **living by farming** and **mistreating the Tainos** are acknowledged, and **dividing up the island** could be inferred evidently from **gold mining**, which the potential implications of **dying of a disease** and **reducing the population** are presumed. (59 words)

### 69. Electric Vehicle - PEV

Here's a term you're going to hear much more often: plug-in vehicle, and the acronym PEV. It's what you and many other people will drive to work in, ten years and more from now. At that time, before you drive off in the morning you will first unplug your car - your plug-in vehicle. Its big on board batteries will have been fully charged overnight, with enough power for you to drive 50-100 kilometers through city traffic.

When you arrive at work you'll plug in your car once again, this time into a socket that allows power to flow from your car's batteries to the electricity grid. One of the things you did when you bought your car was to sign a contract with your favorite electricity supplier, allowing them to draw a limited amount of power from your car's batteries should they need to, perhaps because of a blackout, or very high wholesale spot power prices. The price you get for the power the distributor buys from your car would not only be most attractive to you, it would be a good deal for them too, their alternative being very expensive power from peaking stations. If, driving home or for some other reason your batteries looked like running flat, a relatively small, but quiet and efficient engine running on petrol, diesel or compressed natural gas, even biofuel, would automatically cut in, driving a generator that supplied the batteries so you could complete your journey.

Concerns over 'peak oil', increasing greenhouse gas emissions, and the likelihood that by the middle of this century there could be five times as many motor vehicles registered world-wide

as there are now, mean that the world's almost total dependence on petroleum-based fuels for transport is, in every sense of the word, unsustainable.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **Plug-in vehicles** emphasizes the significance of **board batteries**, the corresponding impacts of **the electricity grid** such as **power prices** and **peaking stations** are acknowledged, and **an efficient engine** could be inferred evidently from **supplying batteries with a generator**, which the potential implications of **increasing greenhouse gas emissions** and **depending on petroleum-based fuels** are presumed. (59 words)

**70. Eye surgery - Blindness**

Scientists believe they may have found a way to prevent complications that can arise following cataract surgery, the world's leading cause of blindness.

Detailing why complications can occur after surgery, researchers from the University of East Anglia (UEA) explained that while cataract surgery works well to restore vision, a few natural lens cells always remain after the procedure. Over time, the eye's wound-healing response leads these cells to spread across the underside of the artificial lens, which interferes with vision, causing what's known as 'posterior capsule opacification' or secondary cataract.

UEA's School of Biological Sciences academic, Dr. Michael Wormstone, who led the study, said: "Secondary visual loss responds well to treatment with laser surgery. But as life expectancy increases, the problems of cataract and posterior capsule opacification will become even greater in terms of both patient wellbeing and economic burden. It's essential that we find better ways to manage the condition in future."

As a result, researchers are designing new artificial lenses that can be placed into a capsular bag that stays open, instead of shrink-wrapping closed, which currently occurs. It is believed that, through the new approach, fluid in the eye can flow around the artificial lens, therefore diluting and washing away the cell-signaling molecules that encourage cell re-growth.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **preventing complications** emphasizes the significance of **cataract surgery**, the corresponding impacts of **blindness** such as **secondary visual loss** and **laser surgery** are acknowledged, and **increasing life expectancy** could be inferred evidently from **posterior capsule opacification**, which the potential implications of **encouraging cell re-growth** as well as **the artificial lens** are presumed. (56 words)



### 71. Autism

Autism is a disorder characterized by impairments in communication, social interaction, and repetitive behaviors. Over the past 40 years, the measured prevalence of autism has multiplied roughly 10-fold. While progress has been made in understanding some of the factors associated with increased risk and rising prevalence, no one knows with certainty what causes autism or what caused autism prevalence to rise so precipitously. There is, however, a growing awareness among scholars that focusing solely on individual risk factors such as exposure toxicants, prenatal complications, or parental education is insufficient to explain why autism prevalence rates have increased so stunningly. Social and institutional processes likely play an important role. For example, changes in diagnostic criteria and an influx of resources dedicated to autism diagnosis may be critical to understanding why prevalence rates have risen. Increased awareness and social influence have been implicated in the rise of autism and a variety of comparable disorders, where social processes mimic the effects of contagion. Studies have examined the contribution of changes in diagnostic criteria and diagnostic substitution to rising autism prevalence rates, but the importance of institutional factors, resources for diagnosis, and greater awareness have not been systematically assessed. The sociological literature on health and inequality, however, provides substantial motivation for exploring how individual- and community-level effects operate to shape the likelihood of an autism diagnosis.

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **autism disorder with communication impairments** emphasizes the significance of **rising autism prevalence rates**, the corresponding impacts of **understanding risks and causes** such as **social interaction, repetitive behaviors**, and **the growing awareness** are acknowledged, and **individual risk factors** could be inferred evidently from **social and institutional processes** and **changes in diagnostic criteria**, which the potential implications of **community-level effects** as well as **the autism diagnosis** are presumed. (72 words)

### 72. Books and Television

To understand the final reason why the news marketplace of ideas dominated by television is so different from the one that emerged in the world dominated by the printing press, it is important to distinguish the quality of vividness experienced by television viewers from the “vividness” experienced by readers. I believe that the vividness experienced in the reading of words is automatically modulated by the constant activation of the reasoning centers of the brain that are used in the process of cocreating the representation of reality the author has intended. By contrast, the visceral vividness portrayed on television has the capacity to trigger instinctual responses similar to those triggered by reality itself – and without being modulated by logic, reason, and reflective thought.

The simulation of reality accomplished in the television medium is so astonishingly vivid and compelling compared with the representations of reality conveyed by printed words that it signifies much more than an incremental change in the way people consume information.



Books also convey compelling and vivid representation of reality, of course. But the reader actively participates in the conjuring of the reality the book's author is attempting to depict. Moreover, the parts of the human brain that are central to the reasoning process are continually activated by the very act of reading printed words: Words are composed of abstract symbols – letters – that have no intrinsic meaning themselves until they are strung together into recognizable sequences.

Television, by contrast, present to its viewers a much more fully formed representation of reality – without requiring the creative collaboration that words have always demanded.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **dominating news marketplace by television** emphasizes the significance of **the quality of vividness**, the corresponding impacts of **activating the brain's reasoning centers** such as **representing author's ideas** and **triggering instinctual responses** are acknowledged, and **the visceral vividness** could be inferred evidently from **the reality simulation comparison, printed words, and recognizable sequences**, which the potential implications of **reasoning processes** as well as **the creative collaboration** are presumed. (73 words)

**73. Research on Birds- Climate Change**

As warmer winter temperatures become more common, one way for some animals to adjust is to shift their ranges northward. But a new study of 59 North American bird species indicates that doing so is not easy or quick -- it took about 35 years for many birds to move far enough north for winter temperatures to match where they historically lived.

For example, black vultures have spread northward in the last 35 years and now winter as far north as Massachusetts, where the minimum winter temperature is similar to what it was in Maryland in 1975. On the other hand, the endangered red-cockaded woodpecker did not alter its range at all despite the warming trend; possibly, because it is very specific habitat requirements precluded a range shift.

Both of these scenarios could represent problems for birds, La Sorte said. Species that do not track changes in climate may wind up at the limits of their physiological tolerance, or they may lose important habitat qualities, such as favored food types, as those species pass them by. But they also can't move their ranges too fast if the habitat conditions they depend on also tend to lag behind climate.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **bird species movement** emphasizes the significance of **warmer winter temperatures**, the corresponding impacts of **shifting ranges northward** such as **matching historical habitats** and **tracking climate changes** are acknowledged, and **problems** could be inferred evidently from **specific habitat requirements**, which the potential implications of **physiological tolerance, endangered species, and losing habitat qualities** as well as **depending on habitat conditions** are presumed. (66 words)



#### 74. Multi-life

Life expectancies have been rising by up to three months a year since 1840, and there is no sign of that flattening. Gratton and Scott draw on a 2009 study to show that if the trend continues, more than half the babies born in wealthier countries since 2000 may reach their 100th birthdays.

With a few simple, devastating strokes, Gratton and Scott show that under the current system it is almost certain you won't be able to save enough to fund several decades of decent retirement. For example, if your life expectancy is 100, you want a pension that is 50 per cent of your final salary, and you save 10 per cent of your earnings each year, they calculate that you won't be able to retire till your 80s. People with 100-year life expectancies must recognize they are in for the long haul, and make an early start arranging their lives accordingly.

But how to go about this? Gratton and Scott advance the idea of a multistage life, with repeated changes of direction and attention. Material and intangible assets will need upkeep, renewal or replacement. Skills will need updating, augmenting or discarding, as will networks of friends and acquaintances. Earning will be interspersed with learning or self-reflection. As the authors warn, recreation will have to become "re-creation".

#### Sample answer 1 (Template):

Whereas the fundamental essence of **rising life expectancies** emphasizes the significance of **becoming centenarian in wealthy countries**, the corresponding impacts of **funding decent retirements** such as **the multistage life, arranging lives** and **repeated changes of direction** are acknowledged, and **upkeep of intangible assets** could be inferred evidently from **updating skills**, which the potential implications of **friend networks** as well as **learning and Self-reflection** are presumed. (66 words)

#### 75. Cities

How can we design great cities from scratch if we cannot agree on what makes them great? None of the cities where people most want to live — such as London, New York, Paris and Hong Kong — comes near to being at the top of surveys asking which are best to live in.

The top three in the most recent Economist Intelligence Unit's livability ranking, for example, were Melbourne, Vancouver and Vienna. They are all perfectly pleasant, but great? The first question to tackle is the difference between livability and greatness. Perhaps we cannot aspire to make a great city, but if we attempt to make a livable one, can it in time become great?

There are some fundamental elements that you need. The first is public space. Whether it is Vienna's Ringstrasse and Prater park, or the beaches of Melbourne and Vancouver, these are places that allow the city to pause and the citizens to mingle and to breathe, regardless of class or wealth. Good cities also seem to be close to nature, and all three have easy access to varied, wonderful landscapes and topographies.

A second crucial factor, says Ricky Burdett, a professor of urban studies at the London School of Economics, is a good transport system. "Affordable public transport is the one thing which cuts across all successful cities," he says.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **designing great cities** emphasizes the significance of **livability and greatness ranking**, the corresponding impacts of **public spaces** such as **closeness to nature, wonderful landscapes and topographies** are acknowledged, and **mingling citizens** could be inferred evidently from **people's class and wealth**, which the potential implications of **good transport systems** as well as **the affordable public transport** are presumed. (63 words)

76. Great Managers

What do great managers actually do?

In my research, beginning with a survey of 80,000 managers conducted by the Gallup Organization and continuing during the past two years with in-depth studies of a few top performers, I've found that while there are as many styles of management as there are managers, there is one quality that sets truly great managers apart from the rest: They discover what is unique about each person and then capitalize on it. Average managers play checkers, while great managers play chess. The difference? In checkers, all the pieces are uniform and move in the same way; they are interchangeable. You need to plan and coordinate their movements, certainly, but they all move at the same pace, on parallel paths. In chess, each type of piece moves in a different way, and you can't play if you don't know how each piece moves. More important, you won't win if you don't think carefully about how you move the pieces. Great managers know and value the unique abilities and even the eccentricities of their employees, and they learn how best to integrate them into a coordinated plan of attack.

This is the exact opposite of what great leaders do. Great leaders discover what is universal and capitalize on it. Their job is to rally people toward a better future. Leaders can succeed in this only when they can cut through differences of race, sex, age, nationality, and personality and, using stories and celebrating heroes, tap into those very few needs we all share. The job of a manager, meanwhile, is to turn one person's particular talent into performance. Managers will succeed only when they can identify and deploy the differences among people, challenging each employee to excel in his or her own way. This doesn't mean a leader can't be a manager or vice versa. But to excel at one or both, you must be aware of the very different skills each role requires.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **great managers** emphasizes the significance of **management styles**, the corresponding impacts of **discovering and capitalizing on employees' unique abilities** such as **coordinating an attack plan** and **turning talents into performance** are acknowledged, and **great leaders** could be inferred evidently from **different skills**, which the potential implications of **role requirements, Challenging employees** as well as **a better future** are presumed. (64 words)



**New (97/04/09)**

### 77. Free labor system

Americans in the mid-nineteenth century could point to plenty of examples, real as well as mythical, of self-made men who by dint of "industry, prudence, perseverance, and good economy" had risen "to competence, and then to affluence." With the election of Abraham Lincoln, they could point to one who had risen from a log cabin to the White House. "I am not ashamed to confess that twenty five years ago I was a hired laborer, mauling rails, at work on a flat-boat—just what might happen to any poor man's son!" Lincoln told an audience at New Haven in 1860. But in the free states a man knows that "he can better his condition . . . there is no such thing as a freeman being fatally fixed for life, in the condition of a hired laborer." "Wage slave" was a contradiction in terms, said Lincoln. "The man who labored for another last year, this year labors for himself, and next year he will hire others to labor for him." If a man "continue through life in the condition of the hired laborer, it is not the fault of the system, but because of either a dependent nature which prefers it, or improvidence, folly, or singular misfortune." The "free labor system," concluded Lincoln, "opens the way for all—gives hope to all, and energy, and progress, and improvement of condition to all."

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **self-made men** emphasizes the significance of **Abraham Lincoln's election**, the corresponding impacts of **the hired laborer** such as **the wage slave**, **competence** and **affluence** are acknowledged, and **a dependent nature** could be inferred evidently from **improving conditions**, which the potential implications of **free labor systems** as well as **hiring labors** are presumed. (57 words)

#### **Sample answer:**

Wage dependency is only temporary under the free labor system, as in the 19th center America experienced rapid growth and is considered as a society of equal opportunity, individuals who practiced the virtues of hard work and self-discipline could pull himself up and become self-employed or a successful employer himself.

### 78. Sunshine Revolution

The suburbs of Las Vegas do not look like the cradle of a revolution. Golden stucco-clad houses stretch for street after identical street, interspersed with gated communities with names such as Spanish Oaks and Rancho Bel Air. The sky is the deepest blue, the desert air is clear and the distant mountains are beautiful. The only sounds are the buzz of a gardener's hedge trimmer and a squeaking baby buggy pushed by a power-walking mother. The bright lights of Sin City seem a very long way away.

Yet these quiet streets are being changed by a movement that is gathering momentum across America and around the world, challenging one of the most fundamental of economic relationships: the way we use and pay for energy. There are now more than 7,000 homes in

Nevada fitted with solar panels to generate their own electricity, and the number is rising fast. Just five years ago, residential solar power was still a niche product for the homeowner with a fat wallet and a bleeding heart. Not anymore. Technology, politics and finance have aligned to move it into the mainstream. Solar power has become the fastest-growing energy source in the US.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **solar power** emphasizes the significance of **changing by the revolution**, the corresponding impacts of **energy consumption** such as **technology, politics, and economy** are acknowledged, and **generating electricity** could be inferred evidently from **a residential solar power**, which the potential implications of **solar panels, wealthy homeowners, and niche products** as well as **fastest-growing energy sources in the US** are presumed. (64 words)

**Sample Answer:**

Although the suburbs of Las Vegas don't look like the cradle of a revolution, a moment that challenges one of the most fundamental of economic relationships in energy consumption has increased the number of solar panels that used to be a niche product of wealthy homeowners, and solar power has become the fast-growing energy source in the US.

**79. Crime rate**

The Home Office's periodic British Crime Survey estimates that the true level of crime (the sorts, anyway, which inform the official figures) is about four times that which is registered in the annual statistics.

Quite often, especially in the financial services sector, businesses do not report crimes against themselves for fear of lowering their public image. Many citizens today are not insured against car theft or property loss (because they cannot afford the premiums) so they have no incentive to tell the police if they become victims.

A steep statistical rise in crime can sometimes arise not from a real growth in a particular type of conduct but from a new policing policy — offences of "lewd dancing" rose by about 300 per cent during 12 months in the 1980s in Manchester, but only because the zealous Chief Constable James Anderton had deployed a great many officers in gay nightclubs.

Sometimes the enactment of a new range of offences or the possibility of committing old offences in a new way (like computer offences involving fraud and deception) can cause an upward jolt in crime levels. The figures just released show a startling jump in street robbery but much of this seems to be a very particular crime: the theft of the now ubiquitous mobile phones.

Conversely, if crimes like joyriding and some assaults are kept out of the categories measured in the annual statistics, as is the case, the official figures do not reflect even what is reported to the police as criminal.



The way that criminal statistics are compiled by the Home Office is also relevant. From April 1998, police forces started to count crime in a way which, according to the government, will give "a more robust statistical measure".

Under the new rules, crime is recorded as one crime per victim. Some crimes, like assaults, have always been recorded in this way, so the main impact of the change will be in the area of property offences. Shop thefts, for example, were the old rules counted offenders, will now count victims. Multiple thefts from cars in a car park with a barrier were previously counted as one offence but are now counted as separate offences.

### Sample answer 1 (Template):

Whereas the fundamental essence of **crime levels** emphasizes the significance of **financial services sectors**, the corresponding impacts of **lowering public images** such as **becoming victims** and **a steep statistical rise in crime** are acknowledged, and **new policing policies** could be inferred evidently from **committing old offenses in new ways**, which the potential implications of **police forces**, **a more robust statistical measure**, and **one crime per victim** as well as **property offenses** are presumed. (73 words)

### 80. Tricks of the Writers Trade

It might seem a little eccentric but reviewing your work by reading it aloud can help to identify the woolliest areas. This works best if you perform your reading in a theatrical way, pausing at the commas and ends of sentences. If you run out of breath during a sentence, it is probably too long. You ought to be able to convert your writing into a speech in this way – if it sounds too stilted and convoluted, perhaps you could rework these parts until they sound fluid.

It's unlikely that your reader will be fooled by the idea that long words make you sound clever. Cluttering a sentence with too many complicated words can prevent its meaning from being understood at all. A short word is always preferable to a long one. Why should anyone choose the word 'erroneous' over the word 'wrong' in an essay? Usually writers who employ more obscure words are trying to sound impressive, but can appear pretentious. Direct words enable you to control what you are saying, and are not necessarily babyish, but the most appropriate ones for the job.

When you read you are writing aloud, you will notice that the key stress comes at the end of your sentence. It is therefore most effective to end with a short and emphatic word to secure your point. Try to resist the impulse to waffle at the end of your sentence by trailing off into qualifying clauses. It might be worth relocating the clause to the beginning of the sentence or losing it altogether if you feel that it adds little to its meaning.

Your sentences might be the most grammatically perfect in the world, but still cause your writing to sound wrong if you have misjudged its tone. A colloquial style, which uses slang and exclamations, is an inappropriately chatty tone for an essay. However, style can be equally jarring if your vocabulary is too formal or ambitious for its context. It is much more impressive to make complicated points using simple language and grammar.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **reading the writing aloud** emphasizes the significance of a **theatrical way**, the corresponding impacts of **converting writing into a speech** such as **complicated, short and direct words** are acknowledged, and **the key stress** could be inferred evidently from **resisting the impulse**, which the potential implications of **misjudging sentences' tone, colloquial styles** as well as **grammatically perfect sentences** are presumed. (64 words)

**81. South Africa**

The area that is now South Africa has been inhabited by humans for millennia. The San, the original inhabitant this land, were migratory people who lived in small groups of about 15 to 20 people. They survived by fishing and hunting and by gathering roots and other wild foods. They did not build permanent dwellings but used rock shelters as temporary dwellings. Around 2,000 years ago Khoikhoi pastoralists migrated to the coast.

In the eastern part of present-day South Africa, iron-working societies date from about 300 AD. The Sotho-Tswana and Nguni peoples arrived in this region around 1,200 AD. They lived by agriculture and stock farming, mined gold, copper and tin and hunted for ivory and built stone-walled towns. Over the centuries, these societies had diverse contacts with the Khoisan. Strife between the San and the Khoikhoi developed over competition for game; eventually the Khoikhoi became dominant. These peoples lived in the western part of present-day South Africa and are known collectively as the Khoisan.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **South Africa** emphasizes the significance of **the San and the Khoisan**, the corresponding impacts of **small groups of migratory people** such as **fishing and hunting** are acknowledged, and **building temporary dwellings** could be inferred evidently from **iron-working societies**, which the potential implications of **gold mining, competition for game** as well as **becoming dominant** are presumed. (60 words)

**82. Coffee experience**

Coffee is enjoyed by millions of people every day and the “coffee experience” has become a staple of our modern life and culture. This is according to the Institute of Food Technologists (IFT), an international nonprofit scientific society of professionals engaged in food science, food technology, and related areas in academia, government and industry that is based in the US.

While the current body of research related to the effects of coffee consumption on human health has been contradictory, a study in the in the June issue of the journal Comprehensive Reviews in Food Science and Food Safety, which is published by IFT, found that the potential benefits of moderate coffee drinking outweigh the risks in adult consumers for the majority of major health outcomes considered.



Researchers at Ulster University in the UK systematically reviewed 1,277 studies from 1970 to date on coffee's effect on human health and found the general scientific consensus is that regular, moderate coffee drinking (defined as three to four cups per day) essentially has a neutral effect on health, or can be mildly beneficial. The authors noted causality of risks and benefits cannot be established for either with the research currently available as they are largely based on observational data. Further research is needed to quantify the risk-benefit balance for coffee consumption, as well as identify which of coffee's many active ingredients, or indeed the combination of such, that could be inducing these health benefits.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **coffee experience** emphasizes the significance of **coffee's effects on human health**, the corresponding impacts of **moderate coffee drinking** such as **adult consumers** and **major health outcomes** are acknowledged, and **observational data** could be inferred evidently from **further scientific research**, which the potential implications of **the risk-benefit balance**, **being mildly beneficial** as well as **coffee's active ingredients** are presumed. (63 words)

**83. Wright Brothers (v2)**

After the 1905 flying season, the Wrights contacted the United States War Department, as well as governments and individuals in England, France, Germany, and Russia, offering to sell a flying machine. They were turned down time and time again—government bureaucrats thought they were crackpots; others thought that if two bicycle mechanics could build a successful airplane, they could do it themselves. But the Wright persisted, and in late 1907, the U.S. Army Signal Corps asked for an aircraft. Just a few months later, in early 1908, a French syndicate of businessmen agreed to purchase another.

Both the U.S. Army and the French asked for an airplane capable of carrying a passenger. The Wright brothers hastily adapted their 1905 Flyer with two seats and a more powerful engine. They tested these modifications in secret, back at Kitty Hawk, North Carolina for the first time in several years. Then the brothers parted temporarily—Wilbur to France and Orville to Virginia.

In 1908 and 1909, Wilbur demonstrated Wright aircraft in Europe, and Orville flew in Fort Meyer, Virginia. The flights went well until Orville lost a propeller and crashed, breaking his leg and killing his passenger Lt. Thomas Selfridge. While Orville recuperated, Wilbur kept flying in France, breaking record after record. Orville and his sister Kate eventually joined Wilbur in France, and the three returned home to Dayton to an elaborate homecoming celebration. Together Orville and Wilbur returned to Fort Meyer with a new Military Flyer and completed the U.S. Army trials. A few months later, Wilbur flew before over a million spectators in New York Harbor—his first public flight in his native land. All of these flights stunned and captivated the world. The Wright Brothers became the first great celebrities of the twentieth century.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **selling flying machines** emphasizes the significance of **Wright Brothers**, the corresponding impacts of **being capable for carrying passengers** such as **completing the US Army trials** and **breaking records** are acknowledged, and **the powerful engine** could be inferred evidently from **the public flight**, which the potential implications of **the homecoming celebration**, **captivating the world** as well as **becoming the first great celebrities** are presumed. (68 words)

**84. Madeline Gannon**

Madeline Gannon is a researcher, teacher at the Carnegie Mellon University School of Architecture and Ph.D. candidate in Computational Design — but that’s not all. She is on a mission to open up the infinite design possibilities of 3D printing to the world.

“Currently you have to have a lot of technical background in order to participate in creating things for 3D printers,” Gannon says. “There is still a huge knowledge barrier for how we create digital models.”

As the technology has advanced, prices have plummeted, and now anyone can buy a 3D printer for a few hundred dollars, Gannon notes. However, not just anyone can create original designs for 3D-printed artifacts. To put true creative power into the hands of any ordinary 3D printer owner, Gannon has developed an innovative new system called “Tactum.”

Tactum is a new type of software that lets users create their own unique designs for 3D printers by simply touching a projected image. Using their innate hand gestures, someone using Tactum can poke, rub and otherwise manipulate the projected image that will become their 3D printed object, and see it instantly change shape in response.

In keeping with the goal of democratizing the process, Gannon designed her first series of Tactum artifacts on a surface that everyone can access freely and manipulate instinctively, that being the human body. “My goal was to bring the digital out to the physical world and out onto your body,” says Gannon.

Along with a companion project called Reverb — which translates these user-created designs into printable meshes— that impulse has resulted in a spectacular diversity of bracelet and necklace designs, ranging from smooth landscapes, intricate textures and chaotic free forms to delicate geometries derived from the 19th century art of chorography.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the infinite design possibilities of 3D printing** emphasizes the significance of **technical backgrounds**, the corresponding impacts of **creating original designs** such as **digital models** and **3D-printed artifacts** are acknowledged, and **developing Tactum software** could be inferred evidently from **touching projected images**, which the potential implications of **designing the human body**, **the Reverb project**, and **printable meshes** as well as **bracelet and necklace designs** are presumed. (70 words)



**Sample Answer:**

In order to unlock the possibilities of 3D printing into the world, researchers desire to create original designs for 3D printed artefacts and develop a creative system called Tactum which enables users to use their own unique designs, and with Reverb that creates printable meshes, the impulse has led to a wide variety of bracelets and necklace designs.

**85. Paying for child**

Many people who have written on the subject of allowances say it is not a good idea to pay your child for work around the home. These jobs are a normal part of family life.

Paying children to do extra work around the house, however, can be useful. It can even provide an understanding of how a business works.

Allowances give children a chance to experience the things they can do with money. They can share it in the form of gifts or giving to a good cause. They can spend it by buying things they want. Or they can save and maybe even invest it. Saving helps children understand that costly goals require sacrifice: you have to cut costs and plan for the future. Requiring children to save part of their allowance can also open the door to future saving and investing. Many banks offer services to help children and teenagers learn about personal finance.

A savings account is an excellent way to learn about the power of compound interest. Interest rates on savings can be very low these days. But compounding works by paying interest on interest. So, for example, one dollar invested at two percent interest will earn two cents in the first year. The second year, the money will earn two percent of one dollar and two cents, and so on. That may not seem like a lot. But over time it adds up.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **paying children for extra work around the home** emphasizes the significance of **allowances**, the corresponding impacts of **business understanding** such as **future saving** and **learning personal finance** are acknowledged, and **a savings account** could be inferred evidently from **sacrificing for costly goals**, which the potential implications of **compound interest power** as well as **ways of spending money** are presumed. (64 words)

**Sample Answer:**

Although people may find it inappropriate to pay children for work around home like doing household chores, paying children to do the extra can help them gain a better understanding of business and learn essential skills, and allowances can certainly help them to learn personal finance including investment and savings and the power of compound interests.

### 86. Uncovering Secrets of the Sphinx

The face, though better preserved than most of the statue, has been battered by centuries of weathering and vandalism. In 1402, an Arab historian reported that a Sufi zealot had disfigured it “to remedy some religious errors.” Yet there are clues to what the face looked like in its prime. Archaeological excavations in the early 19th century found pieces of its carved stone beard and a royal cobra emblem from its headdress. Residues of red pigment are still visible on the face, leading researchers to conclude that at some point, the Sphinx’s entire visage was painted red. Traces of blue and yellow paint elsewhere suggest to Lehner that the Sphinx was once decked out in gaudy comic book colors.

For thousands of years, sand buried the colossus up to its shoulders, creating a vast disembodied head atop the eastern edge of the Sahara. Then, in 1817, a Genoese adventurer, Capt. Giovanni Battista Caviglia, led 160 men in the first modern attempt to dig out the Sphinx. They could not hold back the sand, which poured into their excavation pits nearly as fast as they could dig it out. The Egyptian archaeologist Selim Hassan finally freed the statue from the sand in the late 1930s. “The Sphinx has thus emerged into the landscape out of shadows of what seemed to be an impenetrable oblivion,” the New York Times declared.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **the Sphinx statue** emphasizes the significance of **preserving the statue**, the corresponding impacts of **religious errors** such as **archaeological excavations** and **residues of red pigment** are acknowledged, and **the buried colossus by sand** could be inferred evidently from **freeing the statue from the sand**, which the potential implications of **emerging into the landscape** as well as **an impenetrable oblivion** are presumed. (66 words)

### 87. Small wars

In such an environment, warfare is no longer purely directed against the military potential of adversarial states. It is rather directed at infiltrating all areas of their societies and to threaten their existences. The comparatively easy access to weapons of mass destruction, in particular relatively low-cost biological agents, is of key concern. Both governmental and non-governmental actors prefer to use force in a way that can be characterized as “unconventional” or also as “small wars”. War waged according to conventions is an interstate phenomenon. The “small war” is the archetype of war, in which the protagonists acknowledge no rules and permanently try to violate what conventions do exist. The protagonists of the “small war” observe neither international standards nor arms control agreements. They make use of territories where they do not have to fear any sanctions because there is no functioning state to assume charge of such sanctions or because the state in question is too weak to impose such sanction. This type of war does not provide for any warning time. It challenges not only the external security of the nation states and international community, but also their internal safety.



**Sample answer 1 (Template):**

Whereas the fundamental essence of **warfare** emphasizes the significance of **the military potential of adversarial states**, the corresponding impacts of **easy access to weapons** such as **low-cost Biological agents** and **small wars** are acknowledged, and **international standards** could be inferred evidently from **protagonists and sanctions**, which the potential implications of **weak states** and **the external security** as well as **the internal safety** are presumed. (64 words)

**88. Dinosaurs**

What killed off the dinosaurs? The end of the Cretaceous Period saw one of the most dramatic mass extinctions the Earth has ever seen. The fossil record shows that throughout their 160 million year existence, dinosaurs took on a huge variety of forms as the environment changed and new species evolved that were suited to these new conditions. Others that failed to adapt went extinct.

But then 66 million years ago, over a relatively short time, dinosaurs disappeared completely (except for birds). Many other animals also died out, including pterosaurs, large marine reptiles, and other sea creatures such as ammonites. Although the number of dinosaur species was already declining, this suggests a sudden catastrophic event sealed their fate, causing unfavorable changes to the environment more quickly than dinosaurs and other creatures could adapt.

The exact nature of this catastrophic event is still open to scientific debate. The catastrophe could have been an asteroid impact, volcanic eruptions or the effect of both, together with more gradual changes in the Earth's climate over millions of years. Whatever the causes, the huge extinction that ended the age of the dinosaur left gaps in the ecosystem that were subsequently filled by mammals and birds, allowing them to evolve rapidly.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **mass extinctions of dinosaurs** emphasizes the significance of **the fossil record**, the corresponding impacts of **taking a variety of forms** such as **adapting to new conditions** and **evolving new species** are acknowledged, and **sudden catastrophic events** could be inferred evidently from **the environment's changes**, which the potential implications of **asteroid impacts, volcanic eruptions, and the Earth's climate changes** as well as **gaps in the ecosystem** are presumed. (72 words)

**89. The World Wide Web**

By 1984, the internet had grown to include 1,000 host computers. The National Science Foundation was one of the first outside institutions hoping to connect to this body of information. Other government, non-profit, and educational institutions followed. Initial attempts to catalogue this rapidly expanding system of networks were simple. Among the first was Archie, a list of FTP information created by Peter Deutsch at McGill University in

Montreal. However, the greatest innovation in the Internet was still to come, brewing in an MIT laboratory in Cambridge, Mass.

The World Wide Web, or the Web, is often confused with the Internet. In fact, it is just one part of the Internet, along with email, video conferencing, and streaming audio channels. In 1989, Tim Berners-Lee, now a scientist at the Massachusetts Institute of Technology, introduced a new system of communication on the Internet which used hyperlinks and a user-friendly graphical interface. His slice of the Internet pie came to be known as the World Wide Web. Berners-Lee says, “The Web is an abstract (imaginary) space of information. On the Net, you find computers –on the Web, you find documents, sounds, videos, information. On the Net, the connections are cables between computers; on the web, connections are hypertext links. The Web exists because of programs which communicate between computers on the Net. The Web could not be without the Net. The Web made the Net useful because people are really interested in information (not to mention knowledge and wisdom!) and don’t really want to know about computers and cables.”

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the internet growth** emphasizes the significance of **the World Wide Web**, the corresponding impacts of **the body of information** such as **using hyperlinks and the user-friendly graphical interface** are acknowledged, and **expanding networks systems** could be inferred evidently from **the abstract space of information**, which the potential implications of **hypertext links, cable connections**, and **making the net useful** as well as **communicating programs** are presumed. (70 words)

**90. How to determine a protein’s shape**

About 120,000 types of protein molecule have yielded up their structures to science. That sounds a lot, but it isn’t. The techniques, such as X-ray crystallography and nuclear magnetic resonance (NMR), which are used to elucidate such structures do not work on all proteins. Some types are hard to produce or purify in the volumes required. Others do not seem to crystallize at all—a prerequisite for probing them with X-rays. As a consequence, those structures that have been determined include representatives of less than a third of the 16,000 known protein families. Researchers can build reasonable computer models for around another third because the structures of these resemble ones already known. For the remainder, however, there is nothing to go on.

In addition to this lack of information about protein families, there is a lack of information about those from the species of most interest to researchers: Homo sapiens. Only a quarter of known protein structures are human. A majority of the rest come from bacteria. This paucity is a problem, for in proteins form and function are intimately related. A protein is a chain of smaller molecules, called amino acids, that is often hundreds or thousands of links long. By a process not well understood, this chain folds up, after it has been made, into a specific and complex three-dimensional shape. That shape determines what the protein does: acting as a channel, say, to admit a chemical into a cell; or as an enzyme to accelerate a chemical reaction; or as a receptor, to receive chemical signals and pass them on to a cell’s molecular machinery.



**Sample answer 1 (Template):**

Whereas the fundamental essence of **protein molecule structures** emphasizes the significance of **being hard to produce and crystallize**, the corresponding impacts of **protein families** such as **reasonable computer models** and **Homo sapiens** are acknowledged, and **three-dimensional shapes** could be inferred evidently from **amino acids**, which the potential implications of **bacteria, chemical signals, and chemical reactions** as well as **the smaller molecules chain** are presumed. (64 words)

91. Giraffes

In recent months, drought and overgrazing in northern Kenya have sent thousands of herders and their livestock into national parks and other protected areas, intensifying tensions over land and grazing. Violence has taken the lives of several rangers, and a surge in wildlife killings is devastating populations of one of East Africa's most majestic beasts: giraffes. "This affects all wildlife, but giraffes may be particularly hard hit," says Fred Bercovitch, a zoologist at Kyoto University in Japan and director of Save the Giraffes, a nonprofit in San Antonio, Texas.

For hunters, "giraffes are an easy target," he notes. And as scientists have recognized only recently, giraffes have multiple species, and several populations are already in serious decline. In the past 30 years, populations of two East African varieties, the Nubian and reticulated giraffes, have plunged by 97% and 78%, respectively, and the International Union for the Conservation of Nature may soon declare them critically endangered, says Doherty, who is involved in the assessment and leads the Reticulated Giraffe Project, a joint initiative with the Kenya Wildlife Service. In response to the threat, he and other scientists are stepping up research on the animals' birth and survival rates, movements, and interactions with resources and landscapes, hoping to pinpoint risks and focus conservation efforts.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **protected areas** emphasizes the significance of **giraffes**, the corresponding impacts of **violence** such as **wildlife killings, drought and overgrazing** are acknowledged, and **endangered giraffe species** could be inferred evidently from **life threats**, which the potential implications of **animal's birth and survival rates** as well as **interactions with resources and landscapes** are presumed. (57 words)

92. Negotiation

Negotiation is a common process in business to mainly solve business conflicts between both parties. Compromise is a basic negotiation strategy in which both parties give up something that they want in order to get something else they want more. Compromise usually occur in unfair parties when there is a fixed pie to be divided up, and whatever on one side gets, the other side loses. In compromise situations, neither side gets all of what they really want, but they each make concessions in order to reach an agreement that is acceptable to both. Both parties usually can reach win-win concept through compromise.

However, negotiation cannot resolve all the conflict if one party is unwilling to resolve the problem.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **negotiation** emphasizes the significance of a **business common process**, the corresponding impacts of **business conflicts** such as **compromising situation** and **dividing up a fixed pie** are acknowledged, and **making concessions** could be inferred evidently from **reaching an agreement**, which the potential implications of a **win-win concept** as well as **resolving a problem** are presumed. (58 words)

93. **Malaria may weaken the skeleton**

Malaria parasites leave a trail of destruction in an infected person's body. The microscopic invaders massacre red blood cells, produce harmful chemicals, and sometimes damage the brain. A new mouse study suggests that the parasites can also weaken bones. If they do the same in people, they could stunt the growth of children infected with the disease. But the study also provides some good news, identifying a potential way to prevent the skeletal decline with a compound similar to vitamin D.

"It's important work," says parasitologist Regina Joice Cordy of Emory University in Atlanta, who wasn't connected to the study. "It's taken us a step further," she adds, in understanding the long-term effects of malaria infections.

Malaria parasites, which are transmitted through the bite of an infected mosquito, cause the most destruction during the part of their life cycle when they dwell in red blood cells circulating through the body. There, they reproduce and feast on oxygen-carrying hemoglobin proteins, releasing noxious byproducts. The parasites eventually explode from the blood cells, killing them in droves. Although researchers have also detected the parasites in bone marrow, where blood-forming stem cells reside, no one has known until now whether they damage the skeleton.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **Malaria parasites** emphasizes the significance of a **destruction trail**, the corresponding impacts of **weakening bones** such as **stunting the growth of children** and **the skeletal decline prevention** are acknowledged, and a **compound similar to vitamin D** could be inferred evidently from **dwelling in red blood cells**, which the potential implications of **reproducing on hemoglobin proteins** as well as **the bone marrow** and **the brain damage** are presumed. (72 words)

94. **Parents' TV time may be the biggest influence on kids**

Kids mimic what their parents do — and a new study on TV-viewing habits proves just that. Research published July 15 in *Pediatrics* shows that the amount of time parents watch TV is connected to how much TV their children watch, even more so than the location of the TV in the home or the family's rules for television watching. The American Academy of Pediatrics suggests that children and teens should only be allowed to use "high-quality" entertainment media for one to two hours per day. In addition, the house should have "screen-free" zones like



the children's bedroom, where there are no TVs, computer games or video games. The TV should be turned off during dinner, the academy adds.

Each hour of TV viewed by the parents was linked to an additional half hour of viewing time for children. Children whose parents watched more than the average also watched more compared to kids whose parents stuck to the four hours daily.

Parents' TV time had a stronger association to how much time children watched television compared to house rules on time limits, whether the children had a TV in the bedroom and whether the family was watching together. Parents who restricted television time only were able to cut down viewing times for children who were in the 6 to 11-year-old age group. Adolescents watched about one more hour of TV than their parents thought they did, the results also showed.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **mimicking parents** emphasizes the significance of **kids' TV-viewing habits**, the corresponding impacts of **high-quality entertainments** such as **screen-free zones** and **additional viewing time** are acknowledged, and **parents' TV time** could be inferred evidently from **restricted television time**, which the potential implications of **adolescents' watching hours** as well as **rules on time limits** are presumed. (59 words)

**95. Connection between international environmental law and policy**

The connection between international environmental law and policy and developments at a national level is becoming significantly closer. In the past two decades, many developed countries have greatly increased the number of statutes enacted to address environmental matters. This growth can be seen, in part, as a reflection of the number of international conventions being negotiated multilaterally and bilaterally. In the last five years, there also has been an increasing trend for developing countries and countries whose economies are in transition to introduce environmental legislation. This growth in the number of conventions and the consequential increase in environmental statutes on the same subjects is not surprising, given that conventions almost invariably place obligations on signatory countries to take steps, legal and otherwise, to implement their provisions. As a result of the increasing awareness of environmental problems at a national level, more national environmental law will be written, with similar approaches taken to similar problems. Greater similarity will also be encouraged by the fact that the law of developed countries is very often used as precedential material for the drafting of legislation in developing countries. Furthermore, homogenization of legislative approaches is encouraged by the publication of model legislation being developed by secretariats of international environmental conventions. For example, the Basel Convention Secretariat has published a comprehensive set of model national provisions on the movement of hazardous wastes. Finally, with more training programmes being conducted for lawyers and others by UNEP, UNDP and IUCN, common legislative approaches are often promoted.

The connection between international environmental law and policy and developments at a national level is becoming significantly closer, and law of developed countries is very often



used as precedential material for the drafting of legislation in developing countries, furthermore, homogenization of legislative approaches is encouraged by the publication of model legislation being developed by secretariats of international environmental conventions.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **international environmental law and policy** emphasizes the significance of **national-level developments**, the corresponding impacts of **the international conventions** such as **increasing environmental statutes** and **placing an obligation** are acknowledged, and **increasing awareness** could be inferred evidently from **homogenization of legislative approaches**, which the potential implications of **a legislation model** as well as **lawyers' training programs** are presumed. (63 words)

**96. Democracy Government**

A government is the organization, machinery, or agency, through which a political unit exercises its authority, controls and administers public policy, and directs and controls the actions of its members or subjects. The government makes laws, regulate economies, conduct relations with other countries, provide infrastructure and services, and maintain an army and a police force amongst others on behalf of the people of the country.

Democracy is any system of government in which the people have the rule. The ancient Greeks used the word democracy to mean government by the many in contrast to government by the few. The key of democracy is that the people hold ultimate power. Abraham Lincoln best captured this spirit by describing democracy as a government of the people, by the people, for the people. Democratic government is opposed to an authoritative government, where the participation of its citizenry is limited or prohibited, and a state of anarchy where no form of government exists.

Over the years there has been a dramatic growth in the number of political regimes that meet basic standards of procedural democracy. Such procedures include freedom of association and expression, competitive elections that determines who holds political power, and systematic constraints on the exercise of authority. The establishment of democracy in countries with no prior democratic experience, its re-establishment in countries that had experienced periods of authoritarian rule, and the expansion in the number of independent states following the demise of European and Soviet communism led to the adoption of democracy in most countries. As a result of these changes, attention has been focused on constitutional rules that guide competition for and the exercise of political authority under democracy.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **a government** emphasizes the significance of **public policy**, the corresponding impacts of **making laws** such as **democracy** and **holding ultimate power** are acknowledged, and **a government of the people by the people** could be inferred evidently from **an authoritative government**, which the potential implications of **a state of anarchy** as well as **freedom of association, competitive elections, independent states** and **constitutional rules** are presumed. (69 words)



### 97. Georges-Eugène Haussmann

To bring fresh water to the city, his hydraulic engineer, Eugène Belgrand, built a new aqueduct to bring clean water from the Vanne River in Champagne, and a new huge reservoir near the future Parc Montsouris. These two works increased the water supply of Paris from 87,000 to 400,000 cubic meters of water a day. He laid hundreds of kilometers of pipes to distribute the water throughout the city, and built a second network, using the less-clean water from the Ourcq and the Seine, to wash the streets and water the new park and gardens.

The population of Paris had doubled since 1815, with no increase in its area. To accommodate the growing population and those who would be forced from the center by the new boulevards and squares Napoleon III planned to build, he issued a decree annexing eleven surrounding communes, and increasing the number of arrondissements from twelve to twenty, which enlarged the city to its modern boundaries. Beginning in 1854, in the center of the city, Haussmann's workers tore down hundreds of old buildings and cut eighty kilometers of new avenues, connecting the central points of the city. Buildings along these avenues were required to be the same height and in a similar style, and to be faced with cream-colored stone, creating the signature look of Paris boulevards.

Napoleon III also wanted to build new parks and gardens for the recreation and relaxation of the Parisians, particularly those in the new neighborhoods of the expanding city. Napoleon III's new parks were inspired by his memories of the parks in London, especially Hyde Park, where he had strolled and promenaded in a carriage while in exile; but he wanted to build on a much larger scale. Working with Haussmann and Jean-Charles Alphand, the engineer who headed the new Service of Promenades and Plantations, he laid out a plan for four major parks at the cardinal points of the compass around the city. Thousands of workers and gardeners began to dig lakes, build cascades, plant lawns, flowerbeds and trees, construct chalets and grottoes. Napoleon III created the Bois de Boulogne (1852-1858) to the west of Paris; the Bois de Vincennes (1860-1865) to the east; the Parc des Buttes-Chaumont (1865-1867) to the north, and Parc Montsouris (1865-1878) to the south.

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **bringing fresh water to the city** emphasizes the significance of **a new huge reservoir**, the corresponding impacts of **the water supply of Paris** such as **distributing the water throughout the city** and **using the less-clean water** are acknowledged, and **the growing population** could be inferred evidently from **Haussmann's workers**, which the potential implications of **four major parks**, as well as **recreation and relaxation of the Parisians** are presumed. (73 words)

### 98. Living things

It was once assumed that all living things could be divided into two fundamental and exhaustive categories. Multicellular plants and animals, as well as many unicellular organisms, are eukaryotic—their large, complex cells have a well-formed nucleus and many organelles. On the other hand, the true bacteria are prokaryotic cell, which are simple and lack a nucleus. The distinction between eukaryotes and bacteria, initially defined in terms of subcellular structures visible with a microscope, was ultimately carried to the molecular level. Here prokaryotic and eukaryotic cells have many features in common. For instance, they translate genetic information into proteins according to the same type of genetic coding. But even where the molecular processes are the same, the details in the two forms are different and characteristic of the respective forms. For example, the amino acid sequences of various enzymes tend to be typically prokaryotic or eukaryotic. The differences between the groups and the similarities within each group made it seem certain to most biologists that the tree of life had only two stems. Moreover, arguments pointing out the extent of both structural and functional differences between eukaryotes and true bacteria convinced many biologists that the precursors of the eukaryotes must have diverged from the common ancestor before the bacteria arose. Although much of this picture has been sustained by more recent research, it seems fundamentally wrong in one respect. Among the bacteria, there are organisms that are significantly different both from the cells of eukaryotes and from the true bacteria, and it now appears that there are three stems in the tree of life. New techniques for determining the molecular sequence of the RNA of organisms have produced evolutionary information about the degree to which organisms are related, the time since they diverged from a common ancestor, and the reconstruction of ancestral versions of genes. These techniques have strongly suggested that although the true bacteria indeed form a large coherent group, certain other bacteria, the archaebacteria, which are also prokaryotes and which resemble true bacteria, represent a distinct evolutionary branch that far antedates the common ancestor of all true bacteria.

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **living things** emphasizes the significance of **multicellular plants and animals**, the corresponding impacts of **a well-formed nucleus** such as **subcellular structures** and **translating genetic information into proteins** are acknowledged, and **the molecular processes** could be inferred evidently from **prokaryotic and eukaryotic cells**, which the potential implications of **the amino acid sequences** as well as **the reconstruction of ancestral versions of genes** and **a distinct evolutionary branch** are presumed. (73 words)



### 99. Napping (2)

Naps aren't generally included in the litany of good-for-your-heart lifestyle choices recommended for lowering cardiovascular risk, but they may soon be. New research suggests a midday siesta may reduce a person's risk of death from heart disease, possibly by lowering stress levels. The findings must be confirmed, but Dimitrios Trichopoulos, MD, a study author, tells us that there is little downside to taking naps — and there could be big health benefits. "The siesta is a victim of progress. Most of us aren't in the position to take a daily nap," he says. "But our research suggests that the practice could help protect the heart, and we need further studies to find out if this really is the case."

Trichopoulos says the research stemmed from the observation that heart disease death rates are lower in Mediterranean and Latin American countries where midday siestas are part of the culture. His own earlier research in a Greek population provided weak evidence in favor of the nap hypothesis, but another, larger study, conducted in Costa Rica failed to show an association.

The newly published Greek study by Trichopoulos and colleagues from the Harvard School of Public Health in Boston, and Greece's University of Athens Medical School is the largest ever to examine the issue in a previously healthy population. A total of 23,681 residents of Greece with no history of heart disease, stroke, or cancer at enrollment were followed an average of 6.3 years. And the study revealed that people who took naps at least three times a week for average of at least 30 minutes were 37% less likely to die of heart disease than people who did not take regular naps.

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **a daily nap** emphasizes the significance of **reducing the risk of heart diseases**, the corresponding impacts of **siesta's health benefits** such as **lowering stress levels** and **reducing heart disease death rates** are acknowledged, and **the nap hypothesis** could be inferred evidently from **being a part of the culture**, which the potential implications of **being less likely to die** as well as **nap length** and **cardiovascular diseases prevention** are presumed. (74 words)

### 100. American English Dominance

Firstly, from the macroscopic view, the dominance of American English is not precipitated by the language itself, so the arising of English dominance in international communication is not solely the dominance of language itself. Just as the professor Jean Aitchison Oxford pointed out, the success of a language has much to do with the power of the people who use it but has little to do with internal features of the language. It is obvious in consideration to English. During the 18th century and 19th century, the influence of the British Empire began to spread around the world for the sake of industrial revolution, so English began to become popular. English was used not only in the British colonies but also in the diplomatic negotiations of non-English-speaking countries.

However, no matter how powerful the adaptivity is and how large the area that the power of English covers, currently, the international status of English mainly springs from the status of

America as a superpower after World War II. Besides, with the development of the economic globalization and new political structure, there is a great need of an international language. As result, American English became the first choice.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **American English dominance** emphasizes the significance of **the successful language**, the corresponding impacts of **economic globalization** such as **global communication** and **internal features of the languages** are acknowledged, and **an international language** could be inferred evidently from **a new political structure**, which the potential implications of **using English language in diplomatic negotiations** as well as **needing a foreign language** are presumed. (66 words)

**Sample answer:**

Although English became popular during the 18th and 19th centuries due to the influence of British Empire for the sake of industrial revolution, American English becomes the first choice as an international language, since the dominance of American English is associated with the power of the people who use it, specifically with America holding a superpower after World War II, instead of the internal features of the language.

101. **Benefits of honey (2)**

According to Dr. Ron Fessenden, M D, M.P.H. the average American consumes more than 150 pounds of refined sugar, plus an additional 62 pounds of high fructose com syrup every year. In comparison, we consume only around 1.3 pounds of honey per year on average in the U.S. According to new research, if you can switch out your intake of refined sugar and use pure raw honey instead, the health benefits can be enormous.

What is raw honey? It's a pure, unfiltered and unpasteurized sweetener made by bees from the nectar of flowers. Most of the honey consumed today is processed honey that's been heated and filtered since it was gathered from the hive. Unlike processed honey, raw honey does not get robbed of its incredible nutritional value and health powers. It can help with everything from low energy to sleep problems to seasonal allergies. Switching to raw honey may even help weight-loss efforts when compared to diets containing sugar or high fructose corn syrup. I'm excited to tell you more about one of my all-time favorite natural sweeteners today.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the health benefits of sweeteners** emphasizes the significance of **consuming refined sugar**, the corresponding impacts of **natural sweeteners** such as **pure raw honey** and **the nectar of flower** are acknowledged, and **weight-loss efforts** could be inferred evidently from **an unpasteurized sweetener**, which the potential implications of **nutritional values** as well as **health powers** are presumed. (60 words)



### 102. Cocoa

During the time of the Aztecs, cocoa was mainly used as a beverage. Wines and drinks were made from white pulp around the seeds of the cocoa pod. The beans themselves were used to make hot or cold chocolate drinks. Both the Maya and the Aztec secular drinks used roasted cocoa beans, a foaming agent sugar, toasted corn and water. Vanilla and/or chili were also used as an ingredient in the drinks. Cocoa beans were also used as a currency and as a tribute tax from peoples ruled by Aztecs. The oily layer floating in the chocolate drink cocoa butter was used to protect the skin against the sun. For the Aztecs cocoa had a religious significance. Cocoa was believed to be of divine origin: the cocoa tree was a bridge between earth and heaven. Human sacrifices to propitiate God or sun were first sanctified by giving him chocolate. Cocoa beans were given to priest's assistants at children's coming of age ceremonies. During marriage ceremonies, the couple drank a symbolic cup of chocolate and exchanged cocoa beans. Aztecs believed that drinking chocolate gave mortals some of Quetzalcoatl wisdom. – God of learning and of the wind.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **Aztec time** emphasizes the significance of **cocoa beverage**, the corresponding impacts of **chocolate drinks** such as **a currency** and **a tribute tax** are acknowledged, and **religious significance** could be inferred evidently from **protecting the skin**, which the potential implications of **divine origin** as well as **sacrificing to propitiate god** are presumed. (56 words)

### 103. Pace of Aging: Australia and Japan

In 2005 Japan had the highest median age of all countries in the world, while Australia's population was only moderately aged. Some 50 years ago the demographic situation was quite different, with the median age of Australia's population being seven years older than Japan's. The ageing of the population is a major issue for Australian policy makers, particularly in regard to the long-term implications for reduced economic growth and the increasing demand for Age Pensions, and health and aged care services. As the population ages, growth in the number of people of working age will slow, while the proportion of people of retirement age will increase.

Sustained population ageing also leads to slowing or negative population growth. While declining population growth in developed countries is welcomed by some environmentalist and social scientists, economists tend to agree that population decline brings gloomy economic prospects. In addition to the decrease in the labor supply, the demand side of the economy may be affected through shrinking markets for goods and services.

How quickly this occurs depends on the dynamics of fertility, mortality and overseas migration. While a moderate pace of demographic change allows for gradual adjustment of the economy and policies to the changing population demographics, rapid changes are more difficult to manage. As a result, governments and society as a whole may need to take actions to address these issues. But how severe is the ageing of Australia's population, relative to other countries?



One way of applying a degree of perspective to the ageing debate is to compare ageing in Australia with that of other countries. This article examines the population structures in Australia and Japan and the demographic forces that shape the respective populations, both historically and projections for the future.

In 2005 Japan's population was ranked the oldest in the world, with half the people aged over 42.9 years. In comparison, Australia's median age is not projected to reach this level until 2032. Japan's population is projected to decline by 21% between 2005 and 2050 (from 128 million to 101 million). Over the same period, Australia's population is projected to increase by 38% from 20 million to 28 million people.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the highest median age** emphasizes the significance of **Australia's population**, the corresponding impacts of **Reducing economic growth** such as **the dynamic of fertility and mortality** are acknowledged, and **overseas migration** could be inferred evidently from **Japan`s population**, which the potential implications of **demographic situation** as well as **labor supply** are presumed. (56 words)

104. The evolution of the RAS

The evolution of the RAS (Royal Agricultural Society) fits into the wider Western trend of promoting nationalism, progress and technology through exhibitory venues, which first became popular in the 1850s. Various types of fairs, from local agricultural shows to Worlds Fairs, were used as instruments of hegemony to support imperialism, to promote burgeoning capitalist endeavors, and to shape class identities, social spaces and public spaces. Visual culture and the art of display became essential in defining aspects of national distinction. Colonial nations in particular, such as Canada and Australia, were attempting to develop distinct national identities to differentiate themselves from British imperial power. Agricultural fairs in North America originated at the beginning of the nineteenth century and were devoted to educating practicing framers in ways of improving their cultivation of livestock and crops through the use of various technologies.

In 1822, the RAS was created on the premise that was a dire need in Australia for the development of improved farming skills to better support growing urban populations and export markets. Organizations based on agricultural improvement, which were popular in Britain, provided camaraderie as well as political and financial support for their members. Once transferred to the colonies, in this case Australia, they played an integral part in converting and organizing land for colonial purposes.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **royal agricultural society** emphasizes the significance of **promoting nationalism**, the corresponding impacts of **agricultural improvement** such as **farming skills** and **colonial purposes** are acknowledged, and **using of various technologies** could be inferred evidently from **national distinctions**, which the potential implications of **world's fairs** as well as **financial support** are presumed. (55 words)



### 105. Are Individuals Enough?

Many human activities are responsible for the production of greenhouse gases. Generating electricity is the single largest source of CO<sub>2</sub> emissions in the United States, followed by transportation. Negative externalities are created by individuals that engage in more than the economically efficient amount of an activity, such as driving. Because the driver enjoys all of the benefits that come along with driving and only suffer part of the cost, they do not put a limit on how far or how often they should drive. The only way to get individuals to participate in reducing greenhouse gases is by having them bear all the costs of their actions. This is difficult because the costs are so little compared to the benefit, so why give up something that benefits more than sets you back. Two different methods are being proposed in order to help humans take into consideration the costs of their actions in order to reduce production of greenhouse gases. The methods proposed are government regulation and taxation. Unless the government sets regulations and taxes, the individual level of involvement will be very low and unless many people participate, the amount of greenhouse gases will not be significantly reduced.

#### Sample answer 1 (Template):

Whereas the fundamental essence of **human activities** emphasizes the significance of **being responsible for CO<sub>2</sub> emissions**, the corresponding impacts of **generating electricity** such as **reducing greenhouse gases production** and **bearing the cost of individuals' actions** are acknowledged, and **comparing little costs with higher benefits** could be inferred evidently from **governmental regulation and taxation**, which the potential implications of **the rate of involvement**, as well as **requiring a greater Public participation** are presumed. (72 words)

### 106. Brain

It was once believed that the brain was independent of metabolic processes occurring elsewhere in the body. In recent studies, however, we have discovered that the production and release in brain neurons of the neurotransmitter serotonin (neurotransmitters are compounds that neurons use to transmit signals to other cells) depend directly on the food that the body processes.

Our first studies sought to determine whether the increase in serotonin observed in rats given a large injection of the amino acid tryptophan might also occur after rats ate meals that change tryptophan levels in the blood. We found that, immediately after the rats began to eat, parallel elevations occurred in blood tryptophan, brain tryptophan, and brain serotonin levels. These findings suggested that the production and release of serotonin in brain neurons were normally coupled with blood-tryptophan increases. In later studies we found that injecting insulin into a rat's bloodstream also caused parallel elevations in blood and brain tryptophan levels and in serotonin levels. We then decided to see whether the secretion of the animal's own insulin similarly affected serotonin production. We gave the rats a carbohydrate-containing meal that we knew would elicit insulin secretion. As we had hypothesized, the blood tryptophan level and the concentrations of tryptophan serotonin in the brain increased after the meal.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **brain's independence from body's metabolic processes** emphasizes the significance of **production and release of neurons**, the corresponding impacts of **the neurotransmitter serotonin** such as **depending on food, Changing blood-tryptophan level** and **a parallel elevation** are acknowledged, and **increasing serotonin levels** could be inferred evidently from **injecting insulin into bloodstream**, which the potential implications of **eliciting insulin secretion**, as well as **raising concentration of brain's tryptophan serotonin**, are presumed. (73 words)

**107. Why is the night sky dark?**

We see stars all around, so why doesn't their combined light add up to make our night sky--and surrounding space, for that matter--bright? German physicist Heinrich Wilhelm Olbers put the same puzzle this way in 1823: If the universe is infinite in size, and stars (or galaxies) are distributed throughout this infinite universe, then we are certain to eventually see a star in any direction we look. As a result, the night sky should be aglow. Why isn't it?

In fact, the answer is far more profound than it appears. There have been many attempts at explaining this puzzle, dubbed Olbers' Paradox, over the years. One version implicated dust between stars and perhaps between galaxies. The idea was that the dust would block the light from faraway objects, making the sky dark. In reality, however, the light falling on the dust would eventually heat it up so that it would glow as brightly as the original sources of the light.  
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Another proposed answer for the paradox held that the tremendous red shift of distant galaxies--the lengthening of the wavelength of light they emit due to the expansion of the universe--would move light out of the visible range into the invisible infrared. But if this explanation were true, shorter, wavelength ultraviolet light would also be shifted into the visible range--which doesn't happen.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the dark night sky** emphasizes the significance of **explaining the puzzle**, the corresponding impacts of **distributing stars throughout the universe** such as **the infinite universe, blocking the light** and **implicating dust between stars and galaxies** are acknowledged, and **the wavelength of light** could be inferred evidently from **glowing brightly**, which the potential implications of **the invisible infrared** as well as **the visible range** are presumed. (70 words)



### 108. Men and women differ little in political activities

ANN ARBOR—Prior research suggests that women involved in politics focus primarily on different policy concerns than men and are more likely than men to take part in informal, grass-roots activities, while citing altruistic and civic aims as reasons for participation.

However, a recent study published in the American Journal of Political Science by a University of Michigan political scientist finds that female activists differ little from their male counterparts, many of whom engage in policy issues of more general concern at the national level for rewards that are largely material.

” We expected to find gender differences among activists in terms of the activities in which they specialize, the gratifications they reap from taking part, and the issues that animate their participation,” says Nancy Burns, U-M assistant professor of political science.” Probe as we might, we were surprised to find much more similarity than difference between men and women on all these dimensions.”

” Contrary to expectation, we find no statistically significant gender difference in how important issues involving basic human needs, children or youth, the environment, or crime or drugs figure in issue-based participation,” the researchers say.

They add, however, that men are slightly more likely to mention taxes (15 percent of men vs. 12 percent of women) and foreign policy (8 percent of men vs. 5 percent of women) as compelling concerns for taking part in politics.

Women, on the other hand, are more likely to cite education (15 percent of women vs. 7 percent of men) as primary reasons for participating in political activities.

#### **Sample answer 1 (Template):**

Whereas the fundamental essence of **gender differences in politics** emphasizes the significance of **female politicians**, the corresponding impacts of **focusing on different concerns** such as **taking part in informal activities, participation reasons, involving basic human needs, altruistic and civic aims** are acknowledged, and **female activists** could be inferred evidently from **male counterparts**, which the potential implications of **engaging in policy issues** as well as **taxes and foreign policy** are presumed. (70 words)

### 109. Tree Ring Dating – Dendrochronology (2)

Dendrochronology or tree ring dating is the scientific method of dating based on the analysis of patterns of tree rings, also known as growth rings. Dendrochronology can date the time at which tree rings were formed, in many types of wood, to the exact calendar year. This has three main areas of application: paleoecology, where it is used to determine certain aspects of past ecologists (most prominently climate) archaeology and the history of art and architecture, where it is used to date old panel paintings on wood, buildings etc; and radiocarbon dating, where it is used to calibrate radiocarbon ages.

In some areas of the world, it is possible to date wood back a few thousand years, or even many thousands. As of 2013, fully anchored chronologies in the northern hemisphere extend back 13,900 years. Dendrochronology is more visible in temperate zones, where the seasons differ

more markedly. The inner portion of a growth ring is formed early in the growing season, when growth is comparatively rapid (hence the wood is less dense) and is known as "early wood" (or "spring wood", or "late-spring wood"); the outer portion is the "late wood" (and has sometimes been termed 'summer wood', often being produced in the summer, though sometimes in the autumn) and is denser.

Many trees in temperate zones make one growth ring each year, with the newest adjacent to the bark. Hence, for the entire period of a tree's life, a year-by-year record or ring pattern is formed that reflects the age of the tree and the climatic conditions in which the tree grew. Adequate moisture and a long growing season result in a wide ring, while a drought year may result in a very narrow one.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **the dendrochronology** emphasizes the significance of **analyzing patterns of tree rings**, the corresponding impacts of the **paleoecology** such as **calibrating radiocarbon ages** and **the climatic condition** are acknowledged, and **temperate zones** could be inferred evidently from **a growth ring's inner portion**, which the potential implications of **the late wood** as well as **a year-by-year record, a long growing season, adequate moisture, a drought and narrow rings** are presumed. (73 words)

**110. Newborns don't imitate adults**

Many studies have indicated that from birth, infants imitate the behaviors and facial expressions of the adults around them. However, a team of Australian, South African and British researchers have released a study this week that refutes this widespread belief.

"Numerous studies from the 1980s and 90s indicated no imitation by newborns, while others claimed it was there," says Virginia Slaughter, a biologist at the University of Queensland and co-author of the study.

"We wanted to clear up the confusion because the 'fact' that newborns imitate is widely cited, not just in the fields of psychology, neuroscience and paediatrics, but also in popular sources for parents."

The international research team, led by Janine Oostenbroek, a psychologist at the University of York in the UK, exposed more than 100 infants to a broad range of gestures and recorded their responses at one, two, six and nine weeks of age.

The gestures included social cues like adults poking their tongues out, frowning or grinning, as well as non-social cues such as pointing or opening a box.

The findings showed no link between behaviors exhibited by babies in their first few months and the gestures they were exposed to. The babies were just as likely to exhibit gestures they had never seen before as repeat ones they had.

For instance, babies stuck their tongues out just as frequently if they were being exposed to pointing or opening a box, rather than anything to do with mouths or tongues.



**Sample answer 1 (Template):**

Whereas the fundamental essence of **imitating the behaviors** emphasizes the significance of **the facial expressions**, the corresponding impacts of **Refuting a widespread belief** such as **indicating no imitation by newborns** and **clearing up the confusion** are acknowledged, and **a broad range of gestures** could be inferred evidently from **behaviors exhibited by babies**, which the potential implications of **repeating behaviors** as well as **exhibiting new gestures** are presumed. (67 words)

**111. UBC expeditions to the Canadian Arctic**

This summer, 41 UBC alumni and friends participated in expeditions to the Canadian Arctic and the legendary Northwest Passage. Presentations, conversations and learning accompanied their exploration of the great outdoors aboard the Russian-flagged Akademik Ioffe, designed and built in Finland as a scientific research vessel in 1989. Her bridge was open to passengers virtually 24 hours a day. Experts on board presented on topics including climate change, wildlife, Inuit culture and history, and early European explorers. UBC professor Michael Byers presented on the issue of Arctic sovereignty, a growing cause of debate as ice melts, new shipping routes open, and natural resources become accessible. Recommended pre-trip reading was late UBC alumnus Pierre Bertons book, The Arctic Grail.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **participating in expeditions** emphasizes the significance of **the Canadian Arctic**, the corresponding impacts of **a scientific research vessel** such as **being open to passengers** and **presenting different topics** are acknowledged, and **the issue of Arctic sovereignty** could be inferred evidently from **a cause of debates**, which the potential implications of **recommending pre-trip reading** as well as **the great outdoors** are presumed. (66 words)

**112. Aging world**

We live in an ageing world. While this has been recognized for some time in developed countries, it is only recently that this phenomenon has been fully acknowledged. Global communication is "shrinking" the world, and global ageing is "maturing" it. The increasing presence of older persons in the world is making people of all ages more aware that we live in a diverse and multigenerational society. It is no longer possible to ignore ageing, regardless of whether one views it positively or negatively. Demographers note(observe) that if current trends in ageing continue as predicted(anticipated), a demographic revolution, wherein the proportions of the young and the old will undergo a historic crossover, will be felt in just three generations. This portrait of change in the world's population parallels the magnitude of the industrial revolution - traditionally considered the most significant social and economic breakthrough in the history of humankind since the Neolithic period. It marked the beginning of a sustained movement towards modern economic growth in much the same way that

globalization is today marking an unprecedented and sustained movement toward a "global culture". The demographic revolution, it is envisaged, will be at least as powerful. While the future effects are not known, a likely scenario is one where both the challenges as well as the opportunities will emerge from a vessel into which exploration and research, dialogue and debate are poured. Challenges arise as social and economic structures try to adjust to the simultaneous phenomenon of diminishing young cohorts with rising older ones, and opportunities present themselves in the sheer number of older individuals and the vast resources societies stand to gain from their contribution.

**Sample answer 1 (Template):**

Whereas the fundamental essence of **an aging world** emphasizes the significance of **global communication**, the corresponding impacts of **universal aging** such as **a multigeneration society** and **a demographic revolution** are acknowledged, and **undergoing a historic crossover** could be inferred evidently from **the industrial revolution**, which the potential implications of **moving toward modern economic growth** as well as **unknown future events, challenges and opportunities** are presumed. (65 words)