IELTSFever Academic Reading Test 95

Reading Passage 1

You should spend about 20 minutes on Questions 1-13, which are based on the IELTSFever Academic IELTS Reading Test 95 Reading Passage Spider silk 2 below.

Spider silk 2

A strong, light bio-material made by genes from spiders could transform construction and industry

{A} Scientists have succeeded in copying the silk-producing genes of the Golden Orb Weaver spider and are using them to create a synthetic material which they believe is the model for a new generation of advanced bio-materials. The new material, biosilk, which has been spun for the first time by researchers at DuPont, has an enormous range of potential uses in construction and manufacturing.

{B} The attraction of the silk spun by the spider is a combination of great strength and enormous elasticity, which man-made fibres have been unable to replicate. On an equal weight basis, spider silk is far stronger than steel and it is estimated that if a single strand could be made about 1 Om in diameter, it would be strong enough to stop a jumbo jet in flight. A third important factor is that it is extremely light. Army scientists are already looking at the possibilities of using it for lightweight, bulletproof vests and parachutes.

{C} For some time, biochemists have been trying to synthesise the drag-line silk of the Golden Orb Weaver. The drag-line silk, which forms the radial arms of the web, is stronger than the other parts of the web and some biochemists believe a synthetic version could prove to be as important a material as nylon, which has been around for 50 years, since the discoveries of Wallace Carothers and his team ushered in the age of polymers.

{D} To recreate the material, scientists, including Randolph Lewis at the University of Wyoming, first examined the silk-producing gland of the spider. 'We took out the glands that produce the silk and looked at the coding for the protein material they make, which is spun into a web. We then went looking for clones with the right DNA, he says.

{E} At DuPont, researchers have used both yeast and bacteria as hosts to grow the raw material, which they have spun into fibres. Robert Dorsch, DuPont's director of biochemical development, says the globules of protein, comparable with marbles in an egg, are harvested and processed 'We break open the bacteria, separate out the globules of protein and use them as the raw starting material. With yeast, the gene system can be designed so that the material excretes the protein outside the yeast for better access, 'he says.

{F} "The bacteria and the yeast produce the same protein, equivalent to that which the spider uses in the draglines of the web. The spider mixes the protein into a water-based solution and then spins it into a solid fibre in one go. Since we are not as clever as the spider and we are not using such sophisticated organisms, we substituted manmade approaches and dissolved the protein in chemical solvents, which are then spun to push the material through small holes to form the solid fibre.'

{G} Researchers at DuPont say they envisage many possible uses for a new biosilk material. They say that earthquake-resistant suspension bridges hung from cables of synthetic spider silk fibres may become a reality. Stronger ropes, safer seat belts, shoe soles that do not wear out so quickly and tough new clothing are among the other applications. Biochemists such as Lewis see the potential range of uses of biosilk as almost limitless. 'It is very strong and retains elasticity; there are no man-made materials that can mimic both these properties. It is also a biological material with all the advantages that has over petrochemicals, 'he says.

{H} At DuPont's laboratories, Dorsch is excited by the prospect of new super-strong materials but he warns they are many years away. 'We are at an early stage but theoretical predictions are that we will wind up with a very strong, tough material, with an ability to absorb shock, which is stronger and tougher than the man-made materials that are conventionally available to us, he says.

{I} The spider is not the only creature that has aroused the interest of material scientists. They have also become envious of the natural adhesive secreted by the sea mussel. It produces a protein adhesive to attach itself to rocks. It is tedious and expensive to extract the protein from the mussel, so researchers have already produced a synthetic gene for use in surrogate bacteria.

Questions 1-5

Reading Passage 1 has nine paragraphs, A-1.

Which paragraph contains the following information?

Write the correct letter, A-1, in boxes 1-5 on your answer sheet.

(1) a comparison of the ways two materials are used to replace silk-producing glands

(2) predictions regarding the availability of the synthetic silk

(3) ongoing research into other synthetic materials

(4) the research into the part of the spider that manufactures silk

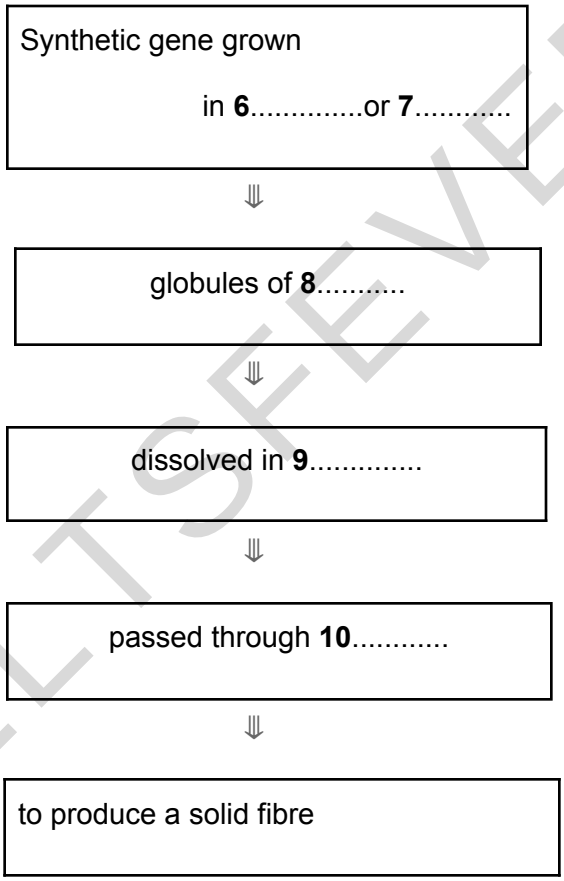
(5) the possible application of the silk in civil engineering

Questions 6-10

Complete the flow-chart below.

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

Write your answers in boxes 6-10 on your answer sheet.



Questions 11-13

Do the following statements agree with the information given in Reading Passage 1? In boxes 11-13 on your answer sheet, write

TRUE	if the statement is True
FALSE	if the statement is false
NOT GIVEN	If the information is not given in the passage

(11) Biosilk has already replaced nylon in parachute manufacture.

(12) The spider produces silk of varying strengths.

(13) Lewis and Dorsch co-operated in the synthetic production of silk

Reading Passage 2

You should spend about 20 minutes on Questions 14-27, which are based on the IELTSFever Academic IELTS Reading Test 95 Reading Passage The reconstruction of community in Talbot Park, Auckland below.

The reconstruction of community

in Talbot Park, Auckland

{A} An architecture of disguise is almost complete at Talbot Park in the heart of Auckland's Glen Innes. The place was once described as a state housing ghetto, rife with crime, vandalism and other social problems. But today after a $48 million urban renewal makeover, the site is home to 700 residents – 200 more than before - and has people regularly inquiring whether they can buy or rent there. "It doesn't look like social housing," Housing New Zealand housing services manager Dene Busby says of the tidy brick and weatherboard apartments and townhouses which would look just as much at home in "there is no reason why public housing should look cheap in my view," says Design Group architect Neil of the eight three-bedroom terrace houses his firm designed.

{B} Talbot Park is a triangle of government-owned land bounded by Apirana Ave, Pilkington Rd and Point England Rd. In the early 1960s it was developed for state housing built around a linear park that ran through the middle. Initially, there was a strong sense of a family-friendly community. Former residents recall how the Talbot Park reserve played a big part in their childhoods – a place where the kids in the block came together to play softball, cricket, tiggy, leapfrog and bullrush. Sometimes they'd play "Maoris against Pakehas" but without any animosity. "It was all just good fun", says Georgie Thompson in Ben Schrader's We Call it

Home: A History of State Housing in New Zealand. "We had respect for our neighbours and addressed them by title Mr. and Mrs. so-and-so," she recalls.

{C} Quite what went wrong with Talbot Park is not clear. We call it Home Records that the community began to change in the late 1970s as more Pacific Islanders and Europeans moved in. The new arrivals didn't readily integrate with the community, a "them and us" mentality developed, and residents interacted with their neighbours less. What was clear was the buildings were deteriorating and becoming dilapidated, petty crime was on the rise and the reserve - focus of fond childhood memories - had become a wasteland and was considered unsafe.

{D} But it wasn't until 2002 that Housing New Zealand decided the properties needed upgrading. The master renewal plan didn't take advantage of the maximum accommodation density allowable (one unit per 100 sq metres) but did increase density to one unit per 180 sq m by refurbishing all 108 star flat units, removing the multis and building 111 new homes. The Talbot strategy can be summed up as mix, match and manage. Mix up the housing with a variety of plans from a mix of architects, match house styles to what's built by the private sector, match tenants to the mix, and manage their occupancy. Inevitably cost comes into the equation." If you're going to build low cost homes, you've got to keep them simple and you can't afford a fancy bit on them." says Michael Thompson of Architectus which designed the innovative three-level Atrium apartments lining two sides of a covered courtyard. At $300,000 per two bedroom unit, the building is more expensive but provides for independent disabled accommodation as well as offering solar hot water heating and rainwater collection for toilet cisterns and outside taps.

{E} The renewal project budget at $1.5 million which will provide park pathways, planting, playgrounds, drinking fountains, seating, skateboard rails, a half-size basketball hard court, and a pavilion. But if there was any doubt this is a low socio-economic area, the demographics for the surrounding Tamaki area are sobering. Of the 5000 households there, 55 per cent are state houses, 28 per cent privately owned (compared to about 65 percent nationally) and 17 per cent are private rental. The area has a high concentration of households with incomes in the $5000 to $15,000 range and very few with an income over $70,000. That's in sharp contrast to the more affluent suburbs like Kohimarama and St John's that surround the area.

{F} "The design is for people with different cultural backgrounds," says architect James Lunday of Common Ground which designed the 21 large family homes. "Architecturally we decided to be relatively conservative - a nice house in its own garden with a bit of space and good indoor outdoor flow." There's a slight reflection of the whare and a Pacific fale, but not overplayed "The private sector is way behind in urban design and sustainable futures," says Bracey. "Redesigning streets and parks is a big deal and very difficult to do. The private sector won't do it, because it's so hard."

{G} There's no doubt good urban design and good architecture play a significant part in the scheme. But probably more important is a new standard of social control. Housing New Zealand calls it "intensive tenancy management". Others view it as social engineering. "It's a model that we are looking at going forward," according to Housing New Zealand's central Auckland regional

manager Graham Bodman.' The focus is on frequent inspections, helping tenants to get to know each other and trying to create an environment of respect for neighbours," says Bodman. That includes some strict rules – no loud parties after 10 pm, no dogs, no cats in the apartments, no washing hung over balcony rails and a requirement to mow lawns and keep the property tidy. Housing New Zealand has also been active in organising morning teas and street barbecues for residents to meet their neighbours. It's all based on the intensification," says Community Renewal project manager Stuart Bracey. "We acknowledge if you are going to put more people living closer together, you have to actually help them to live closer together because it creates tension - especially for people that aren't used to it."

Questions 14-20

Reading Passage 2 has seven paragraphs, A-G.

Choose the correct heading for paragraphs, A-G, from the list below. Write the correct number, i-x, in boxes 14-20 on your answer sheet.

List of Headings

(I) Financial hardship of community

(II) A good tendency of strengthening the supervision

(III) Details of plans for the community's makeover and upgrade

(IV) Architecture suits families of various ethnic origins

(V) Problems arise then the mentality of alienation developed later

(VI) Introduction of a social housing community with unexpected high standard

(VII) A practical design and need assist and cooperate in future

(VIII) closer relationship among neighbors in original site

(IX) different need from a makeup of a low financial background should be considered

(X) How to make the community feel safe

(XI) a plan with details for house structure

(14) Paragraph A

(15) Paragraph B

(16) Paragraph C

(17) Paragraph D

(18) Paragraph E

(19) Paragraph F

(20) Paragraph G

Questions 21-23

Use the information in the passage to match the people (listed A-E) with opinions or deeds below. Write the appropriate letters, A-E, in boxes 21-23 on your answer sheet.

List of people
(A) Michael Thompson
(B) Graham Bodman
(C) Stuart Bracey
(D) James Lunday
(E) Dene Busby

(21) Design should meet the need of mixed-race cultural background

(22) for better living environment, regulations and social control should be imperative

(23) organising more community's activities helps strengthening relationship in community

Questions 24-27

*Complete the following summary of the paragraphs of Reading Passage 2 Choose **NO MORE THAN TWO WORDS** from the passage for each answer: Write your answers in boxes 24-27 on your answer sheet.*

In the year 2002, the Talbot decided to raise housing standards, yet the plan was to build homes much beyond the accommodation limit and people complain about the high living **24**.....

And as the variety plans were complemented under the designs of many **25**.....together, made house styles go with the part designed by individuals, matched tenants from different cultures. As for the finance, reconstruction program's major concern is to build a house within low **26**..... ...;

finally, just as expert predicted, residents will agree on building a relatively conventional house in its own **27**..... , which provides considerable space to move around

Reading Passage 3

You should spend about 20 minutes on Questions 28-40, which are based on the IELTSFever Academic IELTS Reading Test 95 Reading Passage Designed to Last below.

Designed to Last

Could better design cure our throwaway culture?

{A} Jonathan Chapman, a senior lecturer at the University of Brighton, UK, is one of a new breed of 'sustainable designers'. Like many of us, they are concerned about the huge waste associated with Western consumer culture and the damage this does to the environment. Some, like Chapman, aim to create objects we will want to keep rather than discard. Others are working to create more efficient or durable consumer goods, or goods designed with recycling in mind. The waste entailed in our fleeting relationships with consumer durables is colossal

{B} Domestic power tools, such as electric drills, are a typical example of such waste. However much DIY the purchaser plans to do, the truth is that these things are thrown away having been used, on average, for just ten minutes. Most will serve 'conscience time gathering dust on a shelf in the garage; people are reluctant to admin that they have wasted their money. However, the end is inevitable for thousands of years in landfill waste sites. In its design, manufacture,

packaging, transportation and disposal, a power tool consumes many times its own weight in resources, all for a shorter active lifespan than that of the average small insect.

{C} To understand why we have become so wasteful, we should look to the underlying motivation of consumers. 'People own things to give expression to who they are, and to show what group of people they feel they belong to,' Chapman says. In a world of mass production, however, that symbolism has lost much of its potency. For most of human history, people had an intimate relationship with objects they used or treasured. Often they made the objects themselves, or family members passed them on. For more specialist objects, people relied on expert manufacturers living close by, whom they probably knew personally. Chapman points out that all these factors gave objects a history - a narrative - and an emotional connection that today's mass production can not match. Without these personal connections, consumerist culture instead idolizes novelty. We know we can't buy happiness, but the chance to remake ourselves with glossy, box-fresh products seems irresistible. When the novelty fades we simply renew the excitement by buying more new stuff: what John Thackara of Doors of Perception, a network for sharing ideas about the future of design, calls the "schlock of the new".

{D} As a sustainable designer, Chapman's solution is what he calls "emotionally durable design". Think about your favorite old jeans. They just don't have the right feel until they have been worn and washed a hundred times, do they? It is like they are sharing your life story. You can fake that look, but it isn't the same. Chapman says the gradual unfolding of a relationship like this transforms our interactions with objects into something richer than simple utility. Swiss industrial analyst Walter Stahel, visiting professor at the University of Surrey, calls it the "teddy bear factor". No matter how ragged and worn a favorite teddy becomes, we don't rush out and buy another one. As adults, our teddy bear connects us to our childhoods, and this protects it from obsolescence). Stahel says this is what sustainable design needs to do.

{E} It is not simply about making durable items that people want to keep. Sustainable design is a matter of properly costing the whole process of production, energy use and disposal. "It is about the design of systems, the design of culture." says Tim Cooper from the Centre for Sustainable Consumption at Sheffield Hallam University in Britain. He thinks sustainable design has been "surprisingly slow to take off" but says looming environmental crises and resource depletion are pushing it to the top of the agenda.

{F} Thackara agrees. For him, the roots of impending environmental collapse can be summarized in two words: weight and speed. We are making more stuff than the planet can sustain and using vast amounts of energy moving more and more of it around ever faster. The Information Age was supposed to lighten our economies and reduce our impact on the environment, but the reverse seems to be happening. We have simply added information technology to the industrial era and hastened the developed world's metabolism, Thackara argues.

{G} Once you grasp that, the cure is hardly rocket science: minimize waste and energy use, stop moving stuff around so much and use people more. EZIO MANZINI, PROFESSOR of industrial design at Politecnico di Milano university, Italy, describes the process of moving to a

post-throwaway society as like "changing the engine of an aircraft in mid-flight". Even so, he believes it can be done, and he is not alone.

{H} Manzini says a crucial step would be to redesign our globalized world into what he calls the "multi-local society". His vision is that every resource, from food to electricity generation, should as far as possible be sourced and distributed locally. These local hubs would then be connected to national and global networks to allow the most efficient use and flow of materials.

{I} So what will post-throwaway consumerism look like? For a start, we will increasingly buy sustainably designed products. This might be as simple as installing energy-saving light bulbs, more efficient washing machines, or choosing locally produced groceries with less packaging.

{J} We will spend less on material goods and more on services. Instead of buying a second car, for example, we might buy into a car-sharing network. We will also buy less and rent a whole lot more: why own things that you hardly use, especially things that are likely to be updated all the time?Consumer durables will be sold with plans already in place for their disposal. Electronic goods will be designed to be recyclable, with the extra cost added to the retail price as prepayment. As consumers become increasingly concerned about the environment, many big businesses are eagerly adopting sustainable design and brushing up their green credentials to please their customers and stay one step ahead of the competition.

Questions 28-32

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

Write the correct letter in boxes 28-32 on your answer sheet.

Question 28 What does 'conscience time' imply in paragraph 2?

(A) People feel guilty when they throw things away easily.

(B) The shelf in the garage needs cleaning.

(C) The consumers are unaware of the waste problem.

(D) The power tool should be placed in the right place after being used.

Question 29 Prior to the mass production, people own things to show

(A) their quality

(B) their status

(C) their character

(D) their history

Question 30 The word 'narrative' in paragraph 3 refers to

(A) the novelty culture pursued by the customers

(B) the motivation of buying new products

(C) object stories that relate personally and meaningfully to the owners

(D) the image created by the manufacturers

Question 31 Without personal connection, people buy new stuff for

(A) sharing

(B) freshness

(C) collection

(D) family members

Question 32 The writer quotes the old jeans and teddy bear to illustrate that

(A) the products are used for simple utility.

(B) producers should create more special stuff to attract the consumers.

(C) Chapman led a poor childhood life.

(D) the emotional connections make us keep the objects for longer.

Questions 33-36

Complete the summary using the list of words, A-H, below.

Write the correct letter, A-H, in boxes 33-36 on your answer sheet.

Tim Cooper claims that although sustainable design proceeds **33**....., the coming problems are pushing the move. In accordance with Tim Cooper, Thackara believes that the origins of the looming environmental crises are weight and **34**..... The technology which was assumed to have a positive effect on our society actually accelerates the world's **35**..... To cure this, Manzini proposes a 'multi-local society' which means every resource should be located and redeployed **36**.....

A properly	B energy	C Locally
D economy	E slowly	F speed
G quickly	H metabolism	

Questions 37-40 Do the following statements agree with the claims of the writer in Reading Passage? In boxes 37-40 on your answer sheet, write

YES	if the statement agrees with the writer
NO	if the statement does not agree with the writer
NOT GIVEN	if there is no information about this in the passage

(37) People often buy things that are seldom used and throw them away.

(38) In a post-throwaway society, we will pay extra money after disposing of the electronic goods.

(39) Some businesses have jumped on the sustainability bandwagon.

(40) Companies will spend less on repairing in the future.