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Academic Reading Practice Test 6

IELTSFEVER ACADEMIC READING PRACTICE TEST 6

READING PASSAGE 1 Questions 1 - 14

You should spend about 20 minutes on **Questions 1 – 14** which are based on Reading Passage 1 below.

Amber - Frozen Moments in Time

Amber has a deep fascination both for ordinary people as a gem and for the scientist for whom it provides a glimpse into the past, a window into history. The majority of amber which has been discovered and studied originates in the Cenzoic Era. The earlier Mesozoic which consists of the Cretaceous, Jurassic and Triassic periods has also produced amber but in smaller and scarcer quantities due to its much older age. One of the problems associated with Mesozoic amber is the level of degradation it undergoes. Ancient fossil resin can be badly affected by oxidation, erosion, excessive heat and pressure.

Amber begins as resin exuded from trees millions of years ago possibly to protect themselves against fungal or insect attack or as a by-product of some form of growth process. Most known deposits of amber come from various tree species which are now extinct. Baltic amber was produced by a giant tree called *Pinites succinife*r, a tree sharing many characteristics of the currently living genus *Pseudolarix*. The true reason for this resin discharge from various species of trees is not fully understood. Scientists have theorised that it also could be a form of desiccation control, an aid to attract insect pollinators or even a reaction to storm or weather damage.

The resin from the trees needs to go through a number of stages in order to become amber. The first stage involves the slow cross chain linking of the molecular structure within the resin, a kind of polymerisation. This makes the resin hard but easily broken compared to its original state of being soft and plastic. Once it is in this state, the resin can be called copal. Following the polymerisation the next stage is the evaporation of volatile oils inside the copal. The oils, called turpenes, slowly permeate out of the amber. This second stage may take millions of years before the process turns the copal into something approaching the structure of amber. It is speculated that either one or both of these stages in the formation of amber must take place in an anaerobic environment or it may have to sustain a period of immersion in sea water. Amber which is exposed to air for several years undergoes oxidation which causes a distinct darkening and crusting of the gem's surface producing over many years tiny splinters and shards.

The chemical structure of amber is not consistent, not even within a single fragment, let alone a single deposit. Consequently numerous chemical formulas have been attributed to it. The reason for this wide variation is simply because amber is not a true mineral; it is an organic plastic with variable mixtures. Some aspects of amber are fairly consistent though. On Moh's scale of hardness it lies between 2 and 2.5. It has a refraction index of 1.54 and a melting point between 150 - 180°C. The colour range is extremely varied, ranging from near white (osseous) through all shades of yellow, brown and red. There are even examples of blue and green amber. Blue - green amber is thought to have two possible causes: either the permeation of raw resin by mineral deposits present in the soil into which it fell, or the settling of volcanic dust and ash onto the resin when it was first secreted.

One of the most exciting and interesting aspects of amber are the inclusions, both flora and fauna, which are found within it. The most frequent inclusions to be found in amber, particularly Baltic, are examples of the order Diptera or true flies. These tiny flies would have lived on the fungus growing on the rotting vegetation of the amber forest of which no doubt there was enough to support an enormous population. Occasionally a small lizard will be found trapped and encased in amber, particularly from the Dominican Republic deposits. The American Natural History Museum has a famous example of a 25,000,000 year old gecko. Another unusual find is the remains of a frog discovered in a piece mined in the Dominican Republic. At first it was thought to be just one animal with some tissue preserved. The distinct shape of the frog can be seen but most of the flesh has deteriorated and several bones are exposed, some broken. Under closer scrutiny a count of the bones suggests that this particular frog must have had at least 6 legs. Palaeontologists speculate that a bird that ate the frogs may have had a feeding site, perhaps on a branch directly above an accumulating pool of resin; hence the numerous bones present. The complete frog was perhaps an unlucky drop by the bird when it alighted on the branch. Mammalian hair can also infrequently be found trapped as tufts or single strands. When found in the Baltic area, hair in amber is often attributed to sloths that lived within the ancient forest. Resin in the process of hardening usually develops a skin whilst the interior is still soft. Occasionally amber of this nature has impressions stamped on its surface and thus becomes a trace fossil. For instance the clear impression of a cat's paw has ben found on a piece of amber found in the Baltic area.

The faking of inclusions in amber has been a major cottage industry since the earliest times. Gum is melted gently and suitable inclusions placed into the matrix; this is frequently some kind of colourful insect. Artificial colour is always a dead give away of a bogus amber fossil.

Questions 1 - 4

Read the passage *Amber - Frozen Moments in Time* again and look at the statements below.

In boxes **1 - 4** 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 text*

1 Both animal and plant life have been found trapped in amber.

2 Theorists claim that amber must be submerged at some point during its formation process.

3 It's common to find impressions of animals made on the skin of amber while it was hardening.

4 There are two theories for how amber can develop different colours.

Questions 5 - 8

Complete the following statements with the best ending from the box on the next page

Write the appropriate letters **A - G** in boxes **5 - 8** on your answer sheet.

5 For the most part Baltic amber found today was originally created by plant life which…

6 The faking of encasing things in amber is something which…

7 Prehistoric decaying forests provided food which…

8 Amber is a natural material which…

A	... grew to a great height all over the world.
B	… takes place in small houses.
C	… entrapped flies would have fed on.
D	… can be spotted by the colour.
E	… happened only in the Baltic area.
F	… produced gases conducive to amber formation.
G	… has a broad diversity in its chemical formula.

Questions 9 - 11

According to the text which **THREE** of the following are **NOT** given as possible reasons for the production of the resin by trees which later forms amber?

Choose **THREE** letters (**A – H**) and write them in boxes **9 – 11** on your answer sheet.

The order of your answers does not matter.

A	A defence system
B	Changes in the molecular structure of the tree
C	A development side-effect
D	An effect of the Baltic weather
E	A way of dealing with water loss
F	The result of oxidisation
G	Part of the reproduction process
H	A result of damage

Questions 12 – 14

Complete the summary below describing the amber formation process.

Choose your answers from the box below the summary and write them in boxes **12 – 14** on your answer sheet.

NB There are more words than spaces, so you will not use them all.

SUMMARY

The formation of amber goes through various stages of which at least one it has been theorised will need the absence of air. Starting as a viscous (12) __________from a tree, the malleability changes as the material becomes (13) __________with a modification of its structure at the molecular level. The next stage takes place over a long time as turpenes seep out of the material leaving an amber-like material which must undergo further degradation from exposure to (14) __________before it can finally be recognised as what we know as amber today.

tough	evaporation	polymers
soft	secretion	sea water
oxygen	expansion	brittle

READING PASSAGE 2 Questions 15 - 26

You should spend about 20 minutes on **Questions 15 – 26** which are based on Reading Passage 2 on the following pages.

The Death of the Wild Salmon

The last few decades have seen an enormous increase in the number of salmon farms in countries bordering the north Atlantic. This proliferation is most marked in two countries famous for their salmon, Norway and Scotland. Salmon farming in Norway and Scotland has expanded to become a major industry and as the number of farmed salmon has exploded, the population of its wild relatives has crashed. The rivers of these countries that used to have such great summer runs of fish every season that they used to attract thousands of anglers from all over the world are now in perilous decline. Recently Truls Halstensen, a Norwegian fishing writer, wrote that his local river, the Driva, where he used to be able to catch five or more fish of over 20 pounds weight in a morning, is now almost totally fishless.

The link between the increase in farmed salmon and the decline in the wild population is hotly disputed. Environmentalists claim that the increase in farming has affected wild salmon and the sea environment in various ways. Firstly it is claimed that the mass escapes of farmed fish present a grave threat to the gene pool of wild salmon stocks. Escapees breed less successfully than wild salmon but the young of the escapees, known as parr, breed aggressively and can produce four times more successfully than their wild counterparts. The parr bred by escapees also become sexually active far sooner than wild salmon and fertilise more eggs. The farmed salmon are therefore genetically changing the wild salmon stocks. Jeremy Read, director of the Atlantic Salmon Trust points out that: “the major problem of interbreeding is that it reduces a population’s fitness and ability to survive. Native salmon have evolved to meet the circumstances and habitat of sea and river life. Farm fish are under very different selection pressures in an artificial habitat. This could leave the world with a north Atlantic salmon which could not survive in its native conditions.” The huge increase in sea lice in coastal waters is another growing problem. Sea lice thrive in salmon farm conditions and their increase in numbers means that wild salmon and other fish entering waters where there are farms can fall prey to the lice.

Another difficulty and one of the most worrying side effects of the salmon farm industry is that salmon farmers cannot function without vast quantities of tiny sea creatures to turn into food pellets to feed their stock. Lars Tennson of the Norwegian Fishermen’s association complains that “ the huge quantities of small fish caught by industrial trawlers is helping to strip fishing grounds of the small fish and of other species, including wild salmon, that depend on the feed fish.”

Fish farms are also being blamed for increasing levels of nitrogen in the ocean. Over the last 2 years there have been 26 effluent leaks involving nitrogen-rich fish droppings. Naturally occurring algae feed on this and grow into large toxic blooms that kill most other marine life. Even legal chemicals used in farms, such as those used to combat the sea lice, can unbalance micro-organism populations, affecting the other organisms that feed on them. Kevin Dunnon, director of FEO Scotland, has warned that “using inappropriate chemicals and medicines has the potential to do real environmental damage… We will prosecute if we find enough evidence."

In spite of the evidence that farming is harming fish populations, fish farmers are adamant that they are not responsible. Nick Jury insists that "algal blooms and the decline in fish stocks have occurred naturally for decades because of a wide range of unrelated and more complex factors." Jury feels that fish farms are being made a scapegoat for lack of government control of fishing.

Overfishing is a major problem that affects salmon stocks and not just salmon. A combination of high trawler catches, net fishing at estuaries, sport fishing and poaching have all led to stocks of wild salmon diminishing. The UK government likes to think that this problem has been recognized and that the roots of the problems have been attacked by laws passed by them. Fishermen, at sea and in estuaries, have been set quotas and many salmon rivers have been closed to fisherman. Poachers are more difficult to control but their effect is not as marked as that of the fishermen. Angus Kilrie of the NASF feels that the efforts have been wasted: "Legislation has merely scratched the surface. Not enough money has been forthcoming to compensate fishermen and the allowances have been set too high."

The fate of the wild Atlantic salmon is anybody's guess. Farmers and governments seem unworried, environmentalists fear the worst. Wild Scottish salmon stocks this year have actually gone up this year which is heralded by the UK's fisheries department as a result of their policies. Paul Knight, Director of the Salmon and Trout Fishing Association has stated that he is "delighted with the upturn in numbers this year." He adds the warning though that " there are still significant threats to salmon stocks and that it is important not to take our eye off the ball." Statistics though can always be interpreted in different ways. All issues concerning the health of the wild north Atlantic salmon need to continue to be addressed in order to protect the viability of future runs.

Questions 15 – 21

Match the opinions or statements (**15 – 21**) with the people who expressed or said them listed on the next page. Write the appropriate initial of the person in boxes **15 - 21** on your answer sheet.

15 Says farming cannot be blamed for the salmon stock collapse.

16 Claims the demand for feed for salmon farms is destroying the natural food for other types of fish.

17 Says that efforts must be maintained to protect the salmon.

18 Gives an example from his local area.

19 States that measures taken to stop overfishing are not adequate.

20 Says salmon could soon be genetically incapable of continuing to exist.

21 Threatens legal action against farms that misuse chemicals.

JR	Jeremy Read
PK	Paul Knight
AK	Angus Kilrie
TH	Truls Halstensen
KD	Kevin Dunnon
NJ	Nick Jury
LT	Lars Tennson

Questions 22 - 26

Complete each of the following statements (Questions **22 - 26**) with words taken from Reading Passage 2.

Write **NO MORE THAN THREE WORDS** for each answer.

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

22 The connection between the increase in the salmon raised on fish farms and the drop in the naturally raised salmon is fiercely ____________________.

23 The ____________________of farmed salmon reproduce in larger numbers and more effectively than their wild equivalent.

24 Fishing by ____________________ has led to a huge reduction in the numbers of smaller fish which other larger fish use as food.

25 Fish waste matter which escapes into the water is used for food by ____________________ which accelerates their growth leading to the death of other aquatic organisms.

26 The British government has tried to control fishing at sea and at river mouths by allocating specific ____________________ for netters and fishermen.

READING PASSAGE 3 Questions 27 - 40

You should spend about 20 minutes on Questions **27 – 40** which are based on Reading Passage 3 below.

The Can – A Brief History Lesson

A

The story of the can begins in 1795 when Nicholas Appert, a Parisian, had an idea: why not pack food in bottles like wine? Fifteen years later, after researching and testing his idea, he published his theory: if food is sufficiently heated and sealed in an airtight container, it will not spoil. In 1810 Peter Durand, an Englishman, wanted to surpass Appert's invention, so he elected to try tin instead of glass. Like glass, tin could be sealed airtight but tin was not breakable and was much easier to handle. Durand himself did no canning, but two other Englishmen, Bryan Donkin and John Hall, used Durand's patent. After experimenting for more than a year, they set up a commercial canning factory and by 1813 they were sending tins of food to British army and navy authorities for trial.

B

Perhaps the greatest encouragement to the newborn canning industry was the explosion in the number of new colonial territories. As people and goods were being transported to all parts of the world, the can industry itself was growing in new territories. Englishmen who emigrated to America brought their newfound knowledge with them. One of these was Thomas Kensett, who might fairly be called the father of the can manufacturing industry in the United States. In 1812 he set up a small plant on the New York waterfront to can the first hermetically sealed products in the United States.

C

Just before the Civil War, a technical advance by canners enabled them to speed up production. Adding calcium chloride to the water in which cans were cooked raised the water temperature, speeding up the canning process. Also for almost 100 years, tin cans were made by artisans by hand. It was a laborious process, requiring considerable skill and muscle. As the industrial revolution took hold in the United States, the demand for cans increased and machines began to replace the artisans' handiwork. A good artisan could make only 10 cans a day. True production progress in can making began in 1922, when American engineers perfected the body making process. New methods soon increased production of cans to as many as 250 a minute.

D

As early as 1940, can manufacturers began to explore the possibility of adapting cans to package carbonated soft drinks. The can had to be strengthened to accommodate higher internal can pressures created by carbonation (especially during warm summer months), which meant increasing the thickness of the metal used in the can ends. Another concern for the new beverage can was its shelf life. Even small amounts of dissolved tin or iron from the can could impair the drinking quality of drinks. Also the food acids, including carbonic, citric and phosphoric, in soft drinks presented a risk for the rapid corrosion of exposed tin and iron in the can. At this point the can was upgraded by improving the organic coatings used to line the inside. The can manufacturers then embarked on a program of material and cost savings by reducing both the amount of steel and the amount of coating used in can making. These efforts were in part inspired by a new competitor - aluminium.

E

Beverage cans made from aluminum were first introduced in 1965. This was an exciting innovation for the packaging industry because the aluminum can was made with only two pieces - a body and an end. This made production easier. Some of the reasons for the aluminum can's acceptance were its ductility, its support of carbonation pressure, its lighter weight and the fact that aluminum does not rust. Both steel and aluminum cans used an easy-open end tab but the aluminum tab was much easier to make. Perhaps the most critical element in the aluminum can's market success was its recycling value. Aluminum can recycling excelled economically in the competition with steel because of the efficiencies aluminum cans realized in making new cans from recycled materials compared with 100 percent virgin aluminum. Steel did not realize similar economies in the recycling process.

F

Prior to 1970, can makers, customers and consumers alike were unaware of the impact that the mining and manufacturing of steel or aluminium had on the environment. The concept of natural resource preservation was not an issue of great importance and the low growth of population during these early years further de-emphasized concerns for resource depletion. Both industries, however, came to realize the importance of reducing their impact on the environment in the late 1960s and early 1970s as a new environmentally conscious generation emerged. Manufacturers began to recognize the economics of recycling, namely lower manufacturing costs from using less material and less energy. By the 1980s and 1990s, recycling had become a way of life. Aluminum can recycling has become a billion-dollar business and one of the world's most successful environmental enterprises. Over the years, the aluminum can has come to be known as America's most recyclable package, with over 60 percent of cans being recycled annually

G

Advances in can manufacturing technology have also brought us lighter aluminum cans. In 1972, one pound of aluminum yielded only 21.75 cans. Today, by using less material to make each can, one pound of aluminum makes approximately 32 cans - a 47 percent improvement. Just the lightening of can ends makes a huge difference. When you multiply the savings by the 100 billion cans that are made each year, the weight and savings are phenomenal - over 200 million pounds of aluminum!

Questions 27 - 32

The reading passage on *The Can - A Brief History Lesson* has 7 paragraphs **A – G**.

From the list of headings below choose the most suitable headings for paragraphs **B – G**.

Write the appropriate number (**i – xi**) in boxes **27 – 32** on your answer sheet.

NB There are more headings than paragraphs, so you will not use them all.

Example	*Answer*
Paragraph A	iv

i	The Invention of the Aluminium Can
ii	Technological Breakthroughs
iii	Canning and the Beer Industry
iv	The Invention
v	Canning and War
vi	Further Manufacturing Advances
vii	Problems with Spoiled Contents
viii	Expansion of the Industry
ix	Today's Uses for Canning
x	Drinks Canning
xi	Cans and The Environment

27 Paragraph B

28 Paragraph C

29 Paragraph D

30 Paragraph E

31 Paragraph F

32 Paragraph G

Questions 33 - 38

Below are two lists. The first list (**questions 33- 38**) is a list of dates of events in Reading Passage 3: *The Can - A Brief History Lesson*. The second list (**A - G**) is a list of the events. Match the year with the correct event in the history of the can.

Write your answers in boxes **33 - 38** on your answer sheet.

One of the dates and and one of the events are matched as an example.

Example	*Answer*
1810	**E**

QUESTION	**DATE**
EG	**1810**
33	1922
34	1812
35	1813
36	1965

37	1813
38	1940

EVENTS

A Mass production techniques revolutionized the canning process.

B Tinned food was tested by military authorities.

C Today's canning material was first introduced.

D The first American canning factory was opened.

E Tin was used in the canning process for the first time.

F The canning of fizzy drinks began.

G The first business canning plant was opened.

Questions 39 and 40

Read paragraphs F and G of Reading Passage 3 *The Can - A Brief History Lesson* again and look at the statements below.

In boxes **39 and 40** 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 text*

39 Recycling has helped reduce manufacturing overheads.

40 Aluminium can production costs have fallen by nearly 50% since 1972.