# IELTSFever Academic Reading Test 91

## Reading Passage 1

*You should spend about 20 minutes on Questions 1-13, which are based on the IELTSFever Academic IELTS Reading Test 91 Reading Passage Plant Scents below.*

### Plant Scents

**{A}** Everyone is familiar with scented flowers, and many people have heard that floral odors help the plant attract pollinators. This common notion is mostly correct, but it is surprising how little scientific proof of it exists. Of course, not all flowers are pollinated by biological agents-for example, many grasses are wind-pollinated—but the flowers of the grasses may still emit volatiles. In fact, plants emit organic molecules all the time, although they may not be obvious to the human nose. As for flower scents that we can detect with our noses, bouquets that attract moths and butterflies generally smell “sweet,” and those that attract certain flies seem “rotten” to us.

**{B}** The release of volatiles from vegetative parts of the plant is familiar, although until recently the physiological functions of these chemicals were less clear and had received much less attention from scientists. When the trunk of a pine tree is injured-for example, when a beetle tries to burrow into it—it exudes a very smelly resin. This resin consists mostly of terpenes-hydrocarbons with a backbone of 10, 15 or 20 carbons that may also contain atoms of oxygen. The heavier C20 terpenes, called diterpenes, are glue-like and can cover and immobilize insects as they plug the hole. This defense mechanism is as ancient as it is effective: Many samples of fossilized resin, or amber, contain the remains of insects trapped inside. Many other plants emit volatiles when injured, and in some cases the emitted signal helps defend the plant. For example,(Z)-3hexenyl acetate, which is known as a “green leaf volatile” because it is emitted by many plants upon injury, deters females of the moth Heliothis virescens from laying eggs on injured tobacco plants. Interestingly, the profile of emitted tobacco volatiles is different at night than during the day, and it is the nocturnal blend, rich in several (Z)-3-hexen-1-ol esters, that is most effective in repelling the night-active H. virescens moths.

**{C}** Herbivore induced volatiles often serve as indirect defenses. These bulwarks exist in a variety of plant species, including corn, beans, and the model plant species Arabidopsis thaliana. Plants not only emit volatiles acutely, at the site where caterpillars, mites, aphids or similar insects are eating them, but also generally from non-damaged parts of the plant. These signals attract a variety of predatory insects that prey on the plant-eaters. For example, some parasitic wasps can detect the volatile signature of a damaged plant and will lay their eggs inside the offending caterpillar; eventually the wasp eggs hatch, and the emerging larvae feed on the caterpillar from the inside out. The growth of infected caterpillars is retarded considerably, to the benefit of the plant. Similarly, volatiles released by plants in response to herbivore egg laying can attract parasites of the eggs, thereby preventing them from hatching and avoiding the onslaught of hungry herbivores that would have emerged. Plant volatiles can also be used as a

kind of currency in some very indirect defensive schemes. In the rainforest understory tree Leonardoxa africana, ants of the species Petalomyrmex phylax patrol young leaves and attack any herbivorous insects that they encounter. The young leaves emit high levels of the volatile compound methyl salicylate, a compound that the ants use either as a pheromone or as an antiseptic in their nests. It appears that methyl salicylate is both an attractant and a reward offered by the tree to get the ants to perform this valuable deterrent role.

**{D}** Floral scent has a strong impact on the economic success of many agricultural crops that rely on insect pollinators, including fruit trees such as the bee-pollinated cherry, apple, apricot and peach, as well as vegetables and tropical plants such as papaya. Pollination not only affects crop yield, but also the quality and efficiency of crop production. Many crops require most, if not all, ovules to be fertilized for optimum fruit size and shape. A decrease in fragrance emission reduces the ability of flowers to attract pollinators and results in considerable losses for growers, particularly for introduced species that had a specialized pollinator in their place of origin. This problem has been exacerbated by recent disease epidemics that have killed many honeybees, the major insect pollinators in the United States.

**{E}** One means by which plant breeders circumvent the pollination problem is by breeding self-compatible, or apomictic, varieties that do not require fertilization. Although this solution is adequate, its drawbacks include near genetic uniformity and consequent susceptibility to pathogens. Some growers have attempted to enhance honeybee foraging by spraying scent compounds on orchard trees, but this approach was costly, had to be repeated, had potentially toxic effects on the soil or local biota, and, in the end, proved to be inefficient. The poor effectiveness of this strategy probably reflects inherent limitations of the artificial, topically applied compounds, which clearly fail to convey the appropriate message to the bees. For example, general spraying of the volatile mixture cannot tell the insects where exactly the blossoms are. Clearly, a more refined strategy is needed. The ability to enhance existing floral scent, create scent de novo or change the characteristics of the scent, which could all be accomplished by genetic engineering, would allow us to manipulate the types of insect pollinators and the frequency of their visits. Moreover, the metabolic engineering of fragrance could increase crop protection against pathogens and pests.

**{F}** Genetic manipulation of scent will also benefit the floriculture industry. Ornamentals, including cut flowers, foliage and potted plants, play an important aesthetic role in human life. Unfortunately, traditional breeding has often produced cultivars with improved vase life, shipping characteristics, color and shape while sacrificing desirable perfumes. The loss of scent among ornamentals, which have a worldwide value of more than $30 billion, makes them important targets for the genetic manipulation of flower fragrance. Some work has already begun in this area, as several groups have created petunia and carnation plants that express the linalool synthase gene from C. Breweri. These experiments are still preliminary: For technical reasons, the gene was expressed everywhere in the plant, and although the transgenic plants did create small amounts of linalool, the level was below the threshold of detection for the human nose. Similar experiments in tobacco used genes for other monoterpene synthases, such as the one that produces limonene, but gave similar results.

**{G}** The next generation of experiments, already in progress, includes sophisticated schemes that target the expression of scent genes specifically to flowers or other organs—such as special glands that can store antimicrobial or herbivore- repellent compounds.

## Questions 1-4

*The reading Passage has seven paragraphs A-G.*

*Which paragraph contains the following information?*

*Write the correct letter A-G, in boxes 1-4 on your answer sheet.*

**(1)** Substance released to help plants themselves.

**(2)** Scent helps plant's pollination.

**(3)** Practice on genetic experiments of fragrance.

**(4)** Plant's scent attracts the herbivore's enemy for protection.

## Questions 5-8

*Do the following statements agree with the information given in Reading Passage 1? In boxes 5-8 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 |

**(5)** We have little evidence to support the idea that scent attracts pollinators.

**(6)** Heliothis virescens won't eat those tobacco leaves on which they laid eggs.

**(7)** Certain ants are attracted by volatiles to guard plants in rainforest.

**(8)** Pollination only affects fruit trees' production rather than other crop trees.

## Questions 9-13

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

*Write your answers in boxes 9-13 on your answer sheet*.

**Question 9** How do wasps protect plants when they are attracted by scents according to the passage?

**(A)** plant induces wasps to prey on herbivores.

**(B)** wasps lay eggs into caterpillars.

**(C)** wasps laid eggs on plants to expel herbivores.

**(D)** offending caterpillars and wasp eggs coexist well.

**Question 10** What causes the number of honeybees to decline in the United States?

**(A)** pollination process

**(B)** spread illness

**(C)** crop trees are poisonous

**(D)** grower's overlook

**Question 11** Which of the following drawbacks about artificial fragrance is NOT mentioned in the passage?

**(A)** it's very expensive

**(B)** it can't tell correct information to pollinators.

**(C)** it needs massive manual labour

**(D)** it poisons local environment

**Question 12** The number of $30 billion quoted in the passage is to illustrate the fact that:

**(A)** favorable perfume is made from ornamental flowers.

**(B)** traditional floriculture industry needs reform.

**(C)** genetic operation on scent can make vast profit.

**(D)** Scent plays a significant role in the Ornamental industry.

**Question 13** What is the weakness of genetic experiments on fragrance?

**(A)** Linalool level is too low to be smelt by nose

**(B)** no progress made in linalool emission.

**(C)** experiment on tobacco has a better result transgenic

**(D)** plants produce intense scent

## Reading Passage 2

*You should spend about 20 minutes on Questions 14-26, which are based on the IELTSFever Academic IELTS Reading Test 91 Reading Passage Biodiversity below.*

### Biodiversity

**{A}** It seems biodiversity has become a buzzword beloved of politicians, conservationists, protesters and scientists alike. But what exactly is it? The Convention on Biological Diversity, an international agreement to conserve and share the planet's biological riches, provides a good working definition: biodiversity comprises every form of life, from the smallest microbe to the largest animal or plant, the genes that give them their specific characteristics and the ecosystems of which they are a part.

**{B}** In October, the World Conservation Union (also known as the IUCN) published its updated Red List of Threatened Species, a roll call of 11,167 creatures facing extinction - 121 more than when the list was last published in 2000. But the new figures almost certainly underestimate the crisis. Some 1.2 million species of animal and 270,000 species of plant have been classified, but the well-being of only a fraction has been assessed. The resources are simply not available. The IUCN reports that 5714 plants are threatened, for example, but admits that only 4 percent of known plants have been assessed. And, of course, there are thousands of species that we have yet to discover. Many of these could also be facing extinction.

**{C}** It is important to develop a picture of the diversity of life on Earth now, so that comparisons can be made in the future and trends identified. But it isn't necessary to observe every single type of organism in an area to get a snapshot of the health of the ecosystem. In many habitats there are species that are particularly susceptible to shifting conditions, and these can be used as indicator species

**{D}** In the media, it is usually large, charismatic animals such as pandas, elephants, tigers and whales that get all the attention when loss of biodiversity is discussed. However, animals or plants far lower down the food chain are often the ones vital for preserving habitats - in the process saving the skins of those more glamorous species. These are known as keystone species.

**{E}** By studying the complex feeding relationships within habitats, species can be identified that have a particularly important impact on the environment. For example, the members of the fig family are the staple food for hundreds of different species in many different countries, so important that scientists sometimes call figs "jungle burgers". A whole range of animals, from tiny insects to birds and large mammals, feed on everything from the tree's bark and leaves to its flowers and fruits. Many fig species have very specific pollinators. There are several dozen species of fig tree in Costa Rica, and a different type of wasp has evolved to pollinate each one. Chris Lyle of the Natural History Museum in London - who is also involved in the Global Taxonomy Initiative of the Convention on Biological Diversity - points out that if fig trees are affected by global warming, pollution, disease or any other catastrophe, the loss of biodiversity will be enormous.

**{F}** Similarly, sea otters play a major role in the survival of giant kelp forests along the coasts of California and Alaska. These "marine rainforests" provide a home for a wide range of other species. The kelp itself is the main food of purple and red sea urchins and in turn the urchins are eaten by predators, particularly sea otters. They detach an urchin from the seabed then float to the surface and lie on their backs with the urchin shell on their tummy, smashing it open with a stone before eating the contents. Urchins that are not eaten tend to spend their time in rock crevices to avoid the predators. This allows the kelp to grow - and it can grow many centimetres in a day. As the forests form, bits of kelp break off and fall to the bottom to provide food for the urchins in their crevices. The sea otters thrive hunting for sea urchins in the kelp, and many other fish and invertebrates live among the fronds. The problems start when the sea otter population declines. As large predators they are vulnerable - their numbers are relatively small so disease or human hunters can wipe them out. The result is that the sea urchin population grows unchecked and they roam the sea floor eating young kelp fronds. This tends to keep the kelp very short and stops forests developing, which has a huge impact on biodiversity

**{G}** Conversely, keystone species can also make dangerous alien species: they can wreak havoc if they end up in the wrong ecosystem. The cactus moth whose caterpillar i s a voracious eater of prickly pear was introduced to Australia to control the rampant cacti. It was so successful that someone thought it would be a good idea to introduce it to Caribbean islands that had the same problem. It solved the cactus menace, but unfortunately some of the moths have now reached the US mainland - borne on wings and in tourists' luggage - where they are devastating the native cactus populations of Florida.

**{H}** Organisations like the Convention on Biological Diversity work with groups such as the UN and with governments and scientists to raise awareness and fund research. A number of major international meetings - including the World Summit on Sustainable Development in Johannesburg this year - have set targets for governments around the world to slow the loss of biodiversity. And the CITES meeting in Santiago last month added several more names to its list of endangered species for which trade is controlled. Of course, these agreements will prove of limited value if some countries refuse to implement them.

**{I}** There is cause for optimism, however. There seems to be a growing understanding of the need for Sustainable agriculture and sustainable tourism to conserve biodiversity. Problems

such as illegal logging are being tackled through sustainable forestry programmes, with the emphasis on minimising the use of rainforest hardwoods in the developed world and on rigorous replanting of whatever trees are harvested. CITES is playing its part by controlling trade in wood from endangered tree species. In the same way, sustainable farming techniques that minimise environmental damage and avoid monoculture

**{J}** Action at a national level often means investing in public education and awareness. Getting people like you and me involved can be very effective. Australia and many European countries are becoming increasingly efficient at recycling much of their domestic waste, for example, preserving natural resources and reducing the use of fossil fuels. This in turn has a direct effect on biodiversity by minimising pollution, and an indirect effect by reducing the amount of greenhouse gases emitted from incinerators and landfill sites. Preserving ecosystems intact for future generations to enjoy is obviously important, but biodiversity is not some kind of optional extra. Variety may be "the spice of life", but biological variety is also our life-support system.

## Questions 14-20

*Do the following statements agree with the information given in Reading Passage 2*

*In boxes 14-20 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 |



**(14)** The term "biodiversity" consists of living creatures and the environment that they live in.

**(15)** There are species that have not been researched because it's unnecessary to study all creatures.

**(16)** It is not necessary to investigate all creatures in a certain place.

**(17)** The press more often than not focuses on well-known animals.

**(18)** There is a successful case that the cactus moth plays a positive role in the US.

**(19)** Usage of hardwoods is forbidden in some European countries.

**(20)** Agriculture experts advise farmers to plant single crops in the field in terms of sustainable farming.

## Questions 21-26

*Summary*

*Complete the following summary of the paragraphs of Reading Passage, using **no more than two words** from the Reading Passage for each answer. Write your answers in boxes 21-26 on your answer sheet.*

Because of the ignorance brought by the media, people tend to neglect significant creatures called.....**21**..... have diet connections with others, Every such as .....**22**....., which provide a majority of food for other species. In some states of America, decline in the number of sea otters leads to the boom of .....**23**..... An impressive case is that imported .....**24**.....successfully tackles the plant cacti in .....**25**..... However, the operation is needed for the government to increase their financial support in .....**26**.....



## Reading Passage 3

*You should spend about 20 minutes on Questions 27-40, which are based on the IELTSFever Academic IELTS Reading Test 91 Reading Passage Compliance or Noncompliance for children below.*

# Compliance or Noncompliance

# for Children

**{A}** Many Scientists believe that socialization takes a long process, while compliance is the outset of it. Accordingly, compliance for the education of children is the priority. Motivationally distinct forms of child compliance, mutually positive affect, and maternal control, observed in 3 control contexts in 103 dyads of mothers and their 26-41-month-old children, were examined as correlates of internalization, assessed using observations of children while alone with prohibited temptations and maternal ratings. One form of compliance (committed compliance), when the child appeared committed wholeheartedly to the maternal agenda and eager to endorse and

accept it, was emphasized. Mother-child mutually positive affect was both a predictor and a concomitant of committed compliance. Children who shared positive affect with their mothers showed a high level of committed compliance and were also more internalized. Differences and similarities between children's compliance to requests and prohibitions ("Do" vs. "Don't" demand contexts) were also explored. Maternal “Dos” appeared more challenging to toddlers than the "Don'ts." Some individual coherence of behavior was also found across both demand contexts. The implications of committed compliance for emerging internalized regulators of conduct are discussed.

**{B}** A number of parents were not aware of the compliance, some even overlooked their children's noncompliance. Despite good education, these children did not follow the words from their parents on several occasions ,especially boys in certain ages. Fortunately, this rate was acceptable, some parents could be patient with the noncompliance Someone held that noncompliance is probably not a wrong thing. In order to determine the effects of different parental disciplinary techniques on young children's compliance and noncompliance, mothers were trained to observe emotional incidents involving their own toddler-aged children. Reports of disciplinary encounters were analyzed in terms of the types of discipline used (reasoning, verbal prohibition, physical coercion, love withdrawal, and combinations thereof) and children's responses to that discipline (compliance/noncompliance and avoidance). The relation between compliance/noncompliance and type of misdeed (harm to persons, harm to property, and lapses of self-control) was also analyzed. Results indicated that love withdrawal combined with other techniques was most effective in securing children's compliance and that its effectiveness was not a function of the type of technique with which it was combined. Avoidant responses and affective reunification with the parent were more likely to follow love withdrawal than any other technique. Physical coercion was somewhat less effective than love withdrawal, while reasoning and verbal prohibition were not at all effective except when both were combined with physical coercion.

**{C}** “Noncompliant Children sometimes prefer to say no directly as they were younger, they are easy to deal with the relationship with contemporaries when they are growing up .During the period that children are getting older, they may learn to use more advanced approaches for their noncompliance. They are more skillful to negotiate or give reasons for refusal rather than show their opposite idea to parents directly." Said Henry Porter, a scholar working in the Psychology Institute of UK. He indicated that noncompliance means growth in some way, and may have benefits for children. Many Experts held different viewpoints in recent years, they tried drilling compliance into children. His collaborator Wallace Freisen believed in Organizing children's daily activities so that they occur in the same order each day as much as possible. This first strategy for defiant children is ultimately the most important. Developing a routine helps a child to know what to expect and increases the chances that he or she will comply with things such as chores, homework, and hygiene requests. When undesirable activities occur in the same order at optimal times during the day, they become habits that are not questioned, but done without thought. Chances are that you have developed some type of routine for yourself in terms of showering, cleaning your house, or doing other types of work. You have an idea in your mind when you will do these things on a regular basis and this helps you to know what to expect. In fact, you have probably already been using most of these compliance strategies for

yourself without realizing it. For children, without setting these expectations on a daily basis by making them part of a regular routine, they can become very upset. Just like adults, children think about what they plan to do that day and expect to be able to do what they want. So, when you come along and ask them to do something they weren't already planning to do that day, this can result in automatic refusals and other undesirable defiant behavior. However, by using this compliance strategy with defiant children, these activities are done almost every day in the same general order and the child expects to already do them.

**{D}** Doctor Steven Walson addressed that organizing fun activities to occur after frequently refused activities. This strategy also works as a positive reinforcer when the child complies with your requests. By arranging your day so that things often refused occur right before highly preferred activities, you are able to eliminate defiant behavior and motivate your child's behavior by doing the undesirable activity. This is not to be presented in a way that the preferred activity is only allowed if a defiant child does the non-preferred activity. However, you can word your request in a way so that your child assumes that you have to do the non-preferred activity before moving on to the next preferred activity. For example, you do not want to say something such as, "If you clean your room we can play a game." Instead word your request like this, "As soon as you are done cleaning your room we will be able to play that really fun game you wanted to play."

**{E}** Psychologist Paul Edith insisted praise is the best way to make children comply with. This is probably a common term you are used to hearing by now. If you praise your child's behavior, he or she will be more likely to do that behavior. So, it is essential to use praise when working with defiant children. It also provides your child with positive attention. However, it is important to know how to praise children in a way that encourages future automatic reinforcement for your child when doing a similar behavior.

## Questions 27-31

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

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

**Question 27** The children, especially boys received good education may

**(A)** always comply with their parents' words

**(B)** be good at math

**(C)** have a high score at school

**(D)** disobey their parents' order sometimes

**Question 28** Face to their children's compliance and noncompliance, parents

**(A)** must be aware of the compliance

**(B)** ask for help from their teachers

**(C)** some of them may ignore their noncompliance

**(D)** pretend not to see

**Question 29** According to Henry Porter ,noncompliance for children

**(A)** are entirely harmful

**(B)** may have positive effects

**(C)** needs medicine assistance

**(D)** should be treated by expert doctor

**Question 30** When children are growing up, they

**(A)** always try to directly say no

**(B)** are more skillful to negotiate

**(C)** learn to cheat instead of noncompliance

**(D)** tend to keep silent

**Question 31** Which is the possible reaction the passage mentioned for elder children and younger ones if they don't want to comply with the order

**(A)** elder children prefer to refuse directly

**(B)** elder ones refuse to answer

**(C)** younger children may reject directly

**(D)** younger ones may save any words

## Questions 32-35

*Look at the following people and list of statements below.*

*Match each person with the correct statement.*

*Write the correct letter A-G in boxes 32-35 on your answer sheet.*

**(32)** Henry Porter

**(33)** Wallace Freisen

**(34)** Steven Walson

**(35)** Paul Edith

**(A)** List of statements children of all ages will indirectly show noncompliance.

**(B)** Elder children tend to negotiate rather than show noncompliance

**(C)** converse behavior means noncompliance

**(D)** organizing fun activities to occur after frequently refused activities

**(E)** organizing children's daily activities in the same order as much as possible.

**(F)** use praise in order to make children compliant

**(G)** take the children to school at a early age

## Questions 36-40

*Do the following statements agree with the claims of the writer in Reading Passage? In boxes 36-40 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 |

**(36)** Socialization takes a long process, while compliance is the prior research subject

**(37)** Parents' cognition and attitude to their children's compliance or noncompliance are varied.

**(38)** Younger children choose to be noncompliant because it may be simple to get along with peers of the same age.

**(39)** Experts never tried drilling compliance into children.

**(40)** Psychologist Paul Edith negated the importance of knowing how to praise children in an encouraging way.